

## Boethius on Mind, Grammar and Logic

# Philosophia Antiqua

A Series of Studies on Ancient Philosophy

*Previous Editors*

J.H. Waszink †  
W.J. Verdenius †  
J.C.M. Van Winden

*Edited by*

K.A. Algra  
F.A.J. de Haas  
J. Mansfeld  
C.J. Rowe  
D.T. Runia  
Ch. Wildberg

VOLUME 127

*The titles published in this series are listed at [brill.nl/pha](http://brill.nl/pha)*

# Boethius on Mind, Grammar and Logic

A Study of Boethius' Commentaries on  
*Peri hermeneias*

By  
Taki Suto



BRILL

LEIDEN • BOSTON  
2012

This book is printed on acid-free paper.

Library of Congress Cataloging-in-Publication Data

Suto, Taki.

Boethius on mind, grammar, and logic : a study of Boethius' Commentaries on Peri hermeneias / by Taki Suto.

p. cm. – (Philosophia antiqua, ISSN 0079-1687 ; v. 127)

Based on the author's thesis (Ph. D.)–St. Louis University, 2008, originally presented under the title: Boethius on language, mind, and reality.

Includes bibliographical references (p. ) and index.

ISBN 978-90-04-21418-7 (hardcover : alk. paper)

1. Boethius, d. 524. *Commentarii in librum Aristotelis Peri hermeneias*. 2. Aristotle. *De interpretatione*. 3. Language and languages–Philosophy. 4. Logic, Ancient. I. Title. II. Series.

B439.B643S88 2012

189–dc23

2011033833

ISSN 0079-1687

ISBN 978 90 04 21418 7

Copyright 2012 by Koninklijke Brill NV, Leiden, The Netherlands.

Koninklijke Brill NV incorporates the imprints Brill, Global Oriental, Hotei Publishing, IDC Publishers, Martinus Nijhoff Publishers and VSP.

All rights reserved. No part of this publication may be reproduced, translated, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission from the publisher.

Authorization to photocopy items for internal or personal use is granted by Koninklijke Brill NV provided that the appropriate fees are paid directly to The Copyright Clearance Center, 222 Rosewood Drive, Suite 910, Danvers, MA 01923, USA.

Fees are subject to change.

*To my family, who led the way*



## CONTENTS

Acknowledgements .....	XI
Note to the Reader .....	XV
Chart 1: Contents of Boethius' Two Commentaries on <i>Peri hermeneias</i> .....	XVII
a. The Correspondences between Boethius' Commentaries and Aristotle's <i>Peri hermeneias</i> .....	XVII
b. Boethius' Divisions of the Commentaries .....	XVIII
b-i. The First Commentary on <i>Peri hermeneias</i> .....	XVIII
b-ii. The Second Commentary .....	XVIII
Chart 2: Chronology of Boethius' Works .....	XIX
Chart 3: Chronology of Major Thinkers and Writers .....	XXI
Chart 4: Relationships among Ancient Commentators .....	XXIII
Introduction .....	1
1. The Scope of This Work .....	1
2. Boethius and the Aristotelian Tradition in the West .....	3
3. The Past Studies of Boethius' Commentaries on <i>Peri hermeneias</i> .....	7
4. The Focus of This Work .....	8

## PART ONE

### BOETHIUS ON WORDS AND MIND

I. The <i>Significatum</i> of Spoken Words .....	17
1. Introduction .....	17
2. Kretzmann's Interpretation of ' <i>Significatum</i> ' .....	20
3. Is ' <i>Significare</i> ' a Technical Expression for 'Sense'? .....	22
4. The <i>Significatum</i> of Spoken Words .....	26
4.1. Spoken Words Signify Thoughts .....	26
4.2. Spoken Words Signify Thoughts and Things .....	31
4.3. A Proposition Signifies Truth and Falsity .....	35
5. Empty Names and Truth-Value Gaps .....	37
5.1. Are there Empty Names? .....	37
5.2. Is there a Truth-Value Gap? .....	39
6. The Paradigm of Boethius' Semantics .....	41

II. Words as ‘ <i>Notae</i> ’ .....	43
1. Introduction .....	43
2. ‘Σύμβολον’ and ‘Σημεῖον’ in Aristotle (16a3–8).....	45
2.1. ‘Σύμβολον’ (16a4) .....	45
2.2. ‘Σημεῖον’ (16a6) .....	48
2.3. ‘Σημεῖον’ $\supset$ ‘Σύμβολον’ .....	51
3. Boethius’ Latin Translation of ‘ <i>Nota</i> ’ .....	52
3.1. Why not ‘ <i>Symbolum</i> ’ for ‘Σύμβολον’? .....	52
3.2. Why not ‘ <i>Signum</i> ’ for ‘Σημεῖον’? .....	58
3.3. ‘ <i>Nota</i> ’ in Cicero’s <i>Topics</i> .....	64
3.4. ‘ <i>Nota</i> ’ Derived from ‘ <i>Noscere</i> ’ .....	65
3.5. ‘ <i>Nota</i> ’ as a Conventional Token .....	66
3.6. ‘ <i>Nota</i> ’ with ‘ <i>Similitudo</i> ’ .....	70
4. Conclusion .....	74
III. Three Types of Speech .....	77
1. Introduction .....	77
2. Kretzmann’s Questions .....	79
3. The Answer to Kretzmann’s Second Question .....	81
3.1. Universal Mental Speech in Boethius’ Texts .....	81
3.2. Magee’s Answer to Kretzmann’s Second Question ....	84
3.3. The Problems in Magee’s Interpretation .....	88
3.4. The Status of the Noun-Verb Distinction in the Mind	91
4. Order of Speaking ( <i>Ordo Orandi</i> ) .....	94
4.1. The Order of Things, Thoughts, Spoken Words and Written Words .....	94
4.2. Ordering of Nature ( <i>Ordatio Naturae</i> ) .....	96
4.3. Signification and Causation .....	99
4.4. The Order for a Speaker and a Listener .....	105
5. Formations of Mental Speech and Spoken Speech .....	108
6. Conclusion .....	111

## PART TWO

## BOETHIUS ON LOGIC AND GRAMMAR

IV. Nouns, Verbs, and Conjunctions .....	117
1. Introduction .....	117
2. Parts of Speech .....	120
2.1. The Historical Background: From Plato to Donatus ..	120



2.2. Boethius' Division .....	124
2.3. Boethius' Delineation of Logic vs. Grammar .....	126
3. The Noun and the Verb .....	129
3.1. The Common Conditions for the Noun and the Verb .....	130
3.2. The Noun-Verb Distinction .....	132
3.3. Indefinite Nouns and Verbs and Cases of Nouns and Verbs .....	135
3.4. Different Noun-Verb Categories .....	138
4. The Conjunction .....	139
5. Conclusion .....	147
V. The Varieties of Speech .....	151
1. Introduction .....	151
2. Imperfect vs. Perfect .....	152
3. Declarative vs. Other Four Species .....	152
4. Distinctions for Explaining the Unity of Propositions: An Overview .....	155
5. Single vs. Multiple .....	159
5.1. Single Affirmations and Negations .....	159
5.2. Single Conditional Propositions .....	162
6. Simple vs. Composite .....	170
6.1. 'Term' ( <i>Terminus</i> ) .....	171
6.2. 'Diction' ( <i>Dictio</i> ) .....	174
6.3. The Simple Proposition .....	175
7. The Combined Distinctions .....	178
8. Single by Nature vs. Single by Stipulation .....	181
9. Conclusion .....	182
VI. The Verb 'To Be' .....	187
1. Introduction .....	187
2. De Rijk's Claim .....	188
3. 'Is' in Boethius' Monographs on Logic .....	191
4. 'Is' in Boethius' Exposition of Chapter 10 ( <i>'Tertium Adiacens'</i> ) .....	194
5. Approaches to 'Is' ( <i>est</i> ) in <i>Peri hermeneias</i> , Chapter 3 .....	199
5.1. Aristotle's Text and Boethius' Translation .....	199
5.2. Boethius' Exposition .....	202
5.3. Ammonius' Exposition .....	212
5.4. Differences between Boethius and Ammonius .....	217
6. Conclusion .....	219

VII. General Conclusions .....	223
1. Some Significant Features of Boethius' Semantics and Logic .....	224
2. Boethius on Mind, Grammar, and Logic .....	226
3. Boethius on Aristotle, the Stoics, and Neoplatonists .....	231
Bibliography .....	237
1. Primary Sources and Selected Translations .....	237
1.1. Boethius' Original Works .....	237
1.2. Boethius' Latin Translations .....	238
1.3. Works of Other Ancient and Medieval Thinkers .....	239
2. Secondary and Modern Literatures .....	249
3. Dictionaries, Fragments or Excerpt Collections and Reference Books .....	266
4. Electronic Databases .....	267
Index of Ancient and Medieval Texts .....	269
Index of Names (Ancient and Medieval Authors) and Subjects ...	285
Index of Modern Authors (Selective) .....	294

## ACKNOWLEDGEMENTS

This work is based upon my Ph.D. dissertation at St. Louis University entitled “Boethius on Language, Mind, and Reality: A Study of Boethius’ Commentary on *Peri hermeneias*,” which I defended in April 2008. All of the chapters have been revised and expanded, except for Chapter 5, which is completely new. From the beginning of the dissertation project, my dissertation supervisor, Prof. Jack Marler, gave me innumerable suggestions. He kindly undertook the task of reviewing all the early versions of this work. Prof. William Charron and Prof. Colleen McCluskey, the other members of my dissertation committee, gave me good feedback, sometimes checked my grammar and raised insightful questions during my defense.

In my short visit to Copenhagen in September 2008 and the years that followed, Prof. Sten Ebbesen generously devoted far more of his time to this work than it may have deserved. Thanks to his comments, I eliminated many errors that were discovered in the dissertation. Some significant changes made to the dissertation are due to his suggestions, but beyond that I decided to plunge into a rereading of Boethius’ texts and other relevant works and make changes as I saw fit. During my two-month stay in Toronto in the winter of 2006, and in my short trip back to the city in the summer of 2009, Prof. John Magee kindly shared his vast experience of Boethius’ works with me. With his help, I avoided misinterpreting some of Boethius’ texts that are discussed in this work. I had the fortunate opportunity to consult Prof. Irène Rosier-Catach about the medieval grammatical tradition during her stay as a visiting professor at Kyoto University in the summer of 2009. Her suggestions for the manuscript lent further accuracy to this work.

Even though this project started as my dissertation at St. Louis University, the original idea had been planted before reaching St. Louis. Prof. Kohei Yamamoto, my first teacher of medieval philosophy, introduced me to the importance of Medieval Aristotelianism and the Patristic tradition. Prof. Masashi Nakahata’s courses on Aristotle deepened my interests in Aristotle and his commentators. I owe some of the ideas in this work to his lecture on Aristotle’s philosophy of language at Kyoto University in 1999. I have been continuously and greatly indebted to Prof. Shinsuke Kawazoe, the director of my first dissertation on Thomas Aquinas, for his

encouragement during my studies abroad and also for his helpful feedback on my writing. I once gave up on publishing this work as a book, but it was he who pushed me back toward this project. Without him and his faith in me, this book may never have come out. The M. Litt. course of St. Andrews-Stirling opened my eyes to the significance of the problem of language in philosophy. This one-year stay at St. Andrews acquainted me with Prof. Stephen Read, who gave me encouragement and comments at the beginning of this project. In addition, Prof. Alan Millar, with whom I finished a M. Litt. thesis on John McDowell, gave me advice on reading philosophical texts and considering connections between philosophical problems.

All of my teachers' ideas and approaches toward research in philosophy and in the history of philosophy have guided me along my journey. As long as I continue my career in this field, I am convinced that their teachings will continue to do so no matter the physical distance between us.

My colleagues at Kyoto University have kept me working by listening to my questions and giving helpful feedback. Dr. Terumasa Okusa took on the task of double-checking the Greek parts of this work. Mr. Perrin Lindelauf suffered through three years of odd sentences and ancient philosophy, but he was a great help in getting this book in shape for publication.

Most chapters in this work, at least in part, have been presented in different conferences in Japan, the United States and Italy. I am indebted to the comments given at these conferences for improving my arguments. A portion of an earlier version of Chapter 4 is published in *The Words in Medieval Logic, Theology and Psychology: Acts of the XIII International Colloquium of the Société Internationale pour l'Étude de la Philosophie Médiévale, Kyoto, 27 September–1 October 2005* (Brepols, 2009).

My long schooling and research in different countries was feasible by generous funding from different organizations: Japan Society for the Promotion of Science (1997–2000, 2005–2008, 2010–), The Rotary Foundation (2000–2001), and The Graduate School of Saint Louis University (2002–2005).

Thanking all the people surrounding me both mentioned and not mentioned who have helped me in various ways, I would like to dedicate this work to my family members who have pursued careers and knowledge in western sciences and arts. I think they have come to understand the spirit of Western cultures without losing themselves. Engaged in different disciplines, they have been my first exemplars. Without them, I

would not have started my career and even if I had, I would probably not have continued. Some of them passed away while I was writing the dissertation, but their musical compositions and drawings remind me of their diligence and humor. Compared with them, I am afraid that I have been less diligent. I hope that I have touched upon the essence of a great Western thinker (Boethius) and a great Western tradition (Aristotelianism) at least in some parts of this work. But I'll leave that to my readers to decide.

Kyoto, May 2011  
Taki Suto



## NOTE TO THE READER

Quotations of the Greek and Latin literatures are taken from the editions which are listed in the bibliography. The translations are basically mine unless noted otherwise.

In giving titles of these works, I often use abbreviations which are customarily used or easily identifiable by those who are familiar with them. For example, 'PH' is the abbreviation of *Peri hermeneias*; 'In PH' stands for a commentary on *Peri hermeneias*; 'In PH<sup>2</sup>' is Boethius' second commentary on *Peri hermeneias*. All the abbreviations are listed in the bibliography along with the titles of the works.

When they are cited, line numbers in critical editions are attached to the page numbers divided by a period, e.g., 31.6–32.3, or 186.2–9.

Some of these editions may not be easily accessible to the reader. For the reader's sake, I sometimes indicate the pagination of other editions as well. For example, "Boethius, *De cat. syll.* 14.15 = 797c." The text referred to is on page 14, line 15 in Christina Thomsen-Thörnqvist's critical edition of Boethius' *De syllogismo categorico*, which is on page 797, column C in Migne's *Patrologia Latina*, vol. 64. The alternate editions are also listed in the bibliography.

Unless I note otherwise in the footnotes of the quotations, I cite texts from these editions without any alteration, save the capitalization of the beginning of each sentence. When an editor of a critical edition inserts a word that is not found in manuscripts, the editor usually marks it with ⟨ ⟩. Thus, if I quote, "continet ⟨nec⟩ propositionem totam," this indicates that the editor of the critical edition inserts 'nec' and I follow the emendation. When I have a different reading from the edition, I put the editor's reading in square brackets. For instance, "... erat [Meiser: erit]" means that I read 'erat' while Meiser has 'erit.'





## CHART 1

### CONTENTS OF BOETHIUS' TWO COMMENTARIES ON *PERI HERMENEIAS*

#### a. *The Correspondences between Boethius' Commentaries and Aristotle's Peri hermeneias*

Aristotle's <i>Peri hermeneias</i> *	The First commentary**	The Second commentary**
Ch. 1: 16a1–18	35–45	13–52
Ch. 2: 16a19–16b5	45–55	52–65
Ch. 3: 16b6–16b25	55–66	65–78
Ch. 4: 16b26–17a7	66–72	80–96
Ch. 5: 17a8–17a24	72–78	96–118
Ch. 6: 17a25–17a37	78–82	118–135
Ch. 7: 17a38–18a12	82–100	135–178
Ch. 8: 18a12–18a27	100–103	178–184
Ch. 9: 18a28–19b4	103–126	184–250
Ch. 10: 19b5–20b12	127–150	254–351
Ch. 11: 20b12–21a33	151–166	351–376
Ch. 12: 21a34–22a13	166–179	376–414
Ch. 13: 22a14–23a26	179–207	414–464
Ch. 14: 22a27–24b9	207–225	464–504

\* Chapter and page number in Bekker's edition.

\*\* Page number in Meiser's edition.

b. *Boethius' Divisions of the Commentaries*

b-i. *The First Commentary on Peri hermeneias*

The division	Aristotle's <i>Peri hermeneias</i> <sup>*</sup>	Boethius's commentary <sup>**</sup>
Book 1	Ch. 1-9: 16a1-19b4	1-126
Book 2	Ch. 10-14: 19b5-24b9	127-225

\* Chapter and page number in Bekker's edition.

\*\* Page number in Meiser's edition.

b-ii. *The Second Commentary*

The division	Aristotle's <i>Peri hermeneias</i> <sup>*</sup>	Boethius's commentary <sup>**</sup>
Book 1	Ch. 1-3: 16a1-b25	3-78
Book 2	Ch. 4-9: 16b26-18a31	79-185
Book 3	Ch. 9: 18a28-19b4	185-250
Book 4	Ch. 10: 19b5-20a40	250-343
Book 5	Ch. 10-14: 20b1-22a31	343-420
Book 6	Ch. 14: 22a32-24b9	421-504

\* Chapter and page number in Bekker's edition.

\*\* Page number in Meiser's edition.

## CHART 2

### CHRONOLOGY OF BOETHIUS' WORKS

Title	Magee & Marenbon <sup>1</sup>	De Rijk <sup>2</sup>	Obertello <sup>3</sup>	Guillaumin <sup>4</sup>
<i>De arithmetica</i>	c. 500–506		c. 502–507	
<i>De musica</i>	c. 500–506		c. 502–507	
<i>De syllogismo categorico</i>	505–506	c. 505–506	513–514	512–513
<i>In Isagogen Porphyrii commenta, editio prima</i>	c. 504–509	c. 504–505	c. 500	
<i>In Categorias Aristotelis</i>	510	c. 509–c. 511	510–511	510
<i>In Isagogen Porphyrii commenta, editio secunda</i>	after 510	c. 507–509	513–514	
<i>De fide catholica</i> [OS IV]	before c. 513		521–522?	before 512
<i>Contra Eutychen et Nestorium</i> [OS V]	513		512	513–519
<i>In Peri hermeneias commentarium, editio prima</i>	c. 513–516	513–515	512	
<i>In Peri hermeneias commentarium, editio secunda</i>	c. 513–516	c. 515–516	515–516	
<i>De divisione</i>	515–520?	505–509	513–514	after 513
<i>De hypotheticis syllogismis</i>	c. 516–522	516–522	517	
<i>De hebdomadibus</i> [OS III]	c. 518–520		521–522	c. 519
<i>Utrum pater et filius</i> ... [OS II]	c. 520–521		521–522	
<i>De trinitate</i> [OS I]	c. 521–522		521–522	519–523
<i>In Topica Ciceronis commentaria</i>	c. 520–523	before 522	518–520	
<i>De topicis differentiis</i>	c. 522–523	before 523	521–522	c. 515
<i>Introductio ad syllogismos categoricos</i>	after 513 probably 523	523?	513–514	
<i>Consolatio philosophiae</i>	523–526	probably 525	523–524	

OS = *Opuscula sacra*

<sup>1</sup> Magee and Marenbon 2008 (refer to other literature including De Rijk 1964).

<sup>2</sup> De Rijk 1964 (especially, 144–145, 159 and 161).

<sup>3</sup> Obertello 1974, 1: 297–342 (“Tabula cronologica,” 342).

<sup>4</sup> Guillaumin 1995, xvi–xxi.



### CHART 3

#### CHRONOLOGY OF MAJOR THINKERS AND WRITERS<sup>†</sup>

Plato**	c. 429–347 BC
Aristotle**	384/3–322/1 BC
Epicurus**	342/1–271/0 BC
Plautus	c. 254–184 BC
Dionysius Thrax	c. 170–c. 90 BC
Varro	116–27 BC
Cicero**	106–43 BC
Nigidius Figulus	98 BC–45 AD
Virgil**	70–19 BC
Seneca, Lucius*	born between 4 BC and 1 AD, and died 65 AD
Pliny the Elder	23/4 AD–79 AD
Quintilian	born around 35 AD and died in the 90s.
Plutarch	born before 50 AD, and died after 120 AD
Ptolemy*	wrote between 146–c. 170 AD
Aspasius**	c. 100–150 AD
Apollonius Dyscolus	2 century AD
Apuleius	c. 125–after 170 AD
Aulus Gellius	c. 125–after 180 AD
Galen	129–c. 216 AD
Sextus Empiricus	160–200 AD
Alexander of Aphrodisias**	appointed Head of the Aristotelian Philosophy between 198 and 209 AD
Plotinus*	205–269/70 AD
Porphyry**	234–c. 305 AD
Iamblichus*	c. 245–c. 325 AD
Victorinus, Marius*	4th century AD
Praetextatus, Vettius Agorius**	c. 320–384 AD
Dexippus	fl. c. 330 AD
Themistius**	c. 317–c. 388 AD
Donatus, Aelius*	fl. 354 AD
Augustine*	354–430 AD
Syrianus**	appointed Head of the Academy in 431/2, and died c. 437 AD
Martianus Capella	fl. c. 425 AD
Proclus	410/12–485 AD
Ammonius	c. 440–after 517 AD
Boethius	c. 480–c. 525/6 AD
Philoponus, John	c. 490–570s AD
Priscian	5–6th century AD
Simplicius	wrote after 532 AD
Cassiodorus	c. 490–c. 585 A

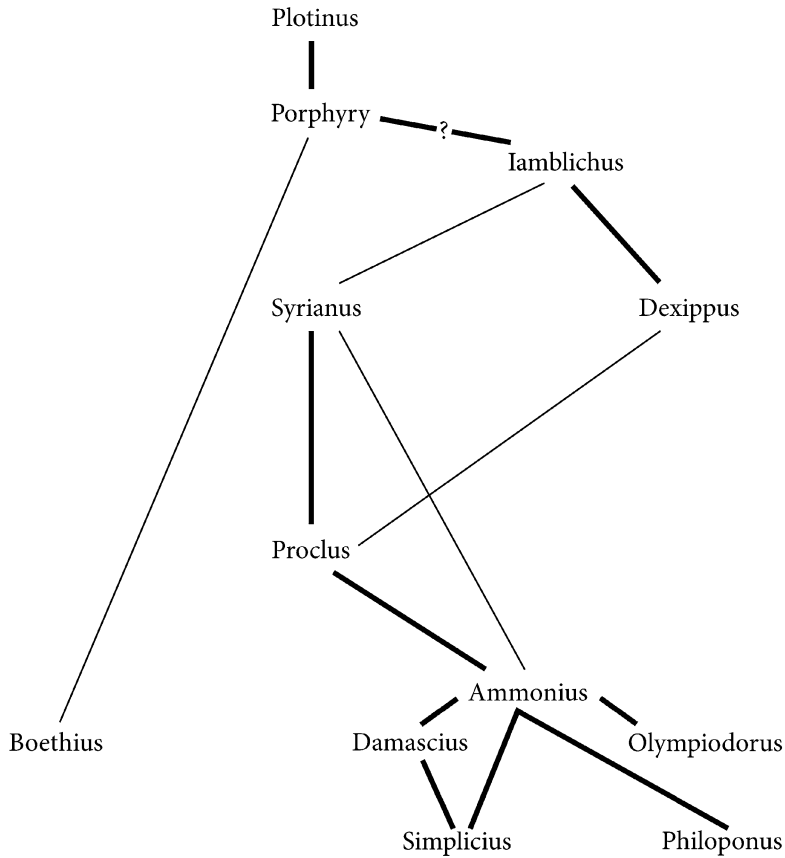
---

<sup>†</sup> Information based on *Oxford Classical Dictionary*, Revised 3rd edition, and supplemented by *Dictionnaire des philosophes antiques*, The Cambridge Companion series (Galen, Boethius) and Sorabji 1990a: 29.



#### CHART 4

#### RELATIONSHIPS AMONG ANCIENT COMMENTATORS



Relationship of Influence:

- direct learning (teacher-student relationship)
- ?** the influence is obvious, and it may be due to direct learning, but we do not have evidence of a teacher-student relationship
- indirect learning (only by direct reading)

Note that it is also possible that some influenced others by indirect reading.

*Dictum est tres esse apud Peripateticos orationes, unam quae litteris scriberetur, aliam quae proferretur in voce, tertiam quae coniungeretur in animo. Quod si tres orationes sunt, partes quoque orationis esse triplices nulla dubitatio est. Quare quoniam verbum et nomen principaliter orationis partes sunt, erunt alia verba et nomina quae scribantur, alia quae dicantur, alia quae tacita mente tractentur.*

Anicius Manlius Severinus Boethius, *Commentarii in librum Aristotelis ΠΕΡΙ ΕΡΜΗΝΕΙΑΣ*, Editio Secunda. ed. C. Meiser, 30.3–10.

*Es ist also, um es kurz zusammenzufassen, das Geschäft des Logikers ein fortwährender Kampf gegen das Psychologische und zum Teil gegen Sprache und Grammatik, insofern sie das Logische nicht rein zum Ausdruck bringen.*

Gottlob Frege, *Nachgelassene Schriften*, ed. H. Hermes, F. Kambartel, F. Kaulbach, 7.



## INTRODUCTION

### 1. *The Scope of This Work*

Anicius Manlius Severinus Boethius (c. 480–c. 525/6) was a Roman aristocrat and thinker who greatly influenced Western arts and sciences.<sup>1</sup> He is best known by his last work, *The Consolation of Philosophy*, which he wrote in prison. Many commentaries were written on this work and there were some attempts in the Middle Ages to translate it into different vernacular languages.<sup>2</sup> He wrote textbooks on mathematics and music, which were widely read in medieval universities. His short but dense theological treatises contain definitions of fundamental concepts of Christian theology and metaphysics such as ‘person,’ ‘nature,’ and ‘substance.’ Later theologians often cited and discussed his definitions of these terms. His translations, commentaries and monographs on logic were also influential because up until the 12th century they were few means available in the Latin West to access the Greek tradition of logic. This work aims to be a study of his commentaries on Aristotle’s *Peri hermeneias* (*De interpretatione*). For my discussion of these commentaries, I use Carl Meiser’s edition, which is the only critical edition currently available. Deviations from the critical edition are recorded in the footnotes of the quotations.

Boethius wrote two commentaries on *Peri hermeneias*. In Meiser’s edition, the first commentary is only 195 pages while the second commentary is 502 pages, more than double the length of the first. Writing two commentaries on the same work was not unusual for him. He also wrote two commentaries on Porphyry’s *Isagoge*, but the first commentary is three-fifths the length of the second commentary.<sup>3</sup> The striking difference in length between the two commentaries on *Peri hermeneias* reflects his careful planning of the role of each commentary: the first

---

<sup>1</sup> For a concise introduction to his life and his influence, see chapters 2 and 9 of Marenbon 2003. For more detailed information, see part 1 of Obertello 1974, vol. 1.

<sup>2</sup> For these commentaries and translations into middle Dutch, French etc., see Hoenen *et al.* 1997.

<sup>3</sup> In Brandt’s edition of Boethius’ commentaries on *Isagoge*, the second commentary is 214 pages while the first commentary is 130 pages. Boethius does not allude to a second commentary in the first.

one to present basic lines of Aristotle's thought, the second one to provide much more detailed explanations.<sup>4</sup> In the second commentary, he often introduces past discussions of Greek commentators and notions that he does not mention in the first commentary. The fact that he purposely wrote two commentaries should be seriously taken into account in considering the apparent inconsistencies and contradictions between them.

This work is primarily devoted to the second commentary. I include the first commentary principally in the following two cases: First, I point out where his explanation significantly differs from that of the second commentary. His account in the second commentary can be mostly regarded as a development of the first, but the first commentary sometimes has explanations incompatible with those in the second commentary.<sup>5</sup> Boethius seems to make contradictory statements rather deliberately, intending to present simple interpretations in the first commentary, knowing that they are not the best.<sup>6</sup> Second, I refer to the first commentary when it illuminates or enhances his explanations in the latter.

I sometimes look at Boethius' other works, mainly logical ones, in relation to the main questions surrounding the second commentary. Where the texts contribute to our understanding, I discuss them in the relevant sections. Otherwise, I refer to them in the footnotes. For my interpretations of the commentaries, I have relied very little on his treatises on theology, liberal arts, and his renowned masterpiece, *The Consolation of Philosophy*. It is important to consider why the same individual wrote all these works in different disciplines. I would not deny that these independent treatises could illuminate his logical works. In fact, I believe they do, and I will argue so in the concluding chapter. I find, however, that these independent treatises have many differences from his logical works. For an accurate interpretation of his logical works we should be very careful in relying on these treatises.<sup>7</sup>

---

<sup>4</sup> In *PH*<sup>1</sup> 31.6–32.3; In *PH*<sup>2</sup> 186.2–9; 250.20–251.4; 294.5–8. For the dates of composition of these commentaries, see Chart 2, p. XIX.

<sup>5</sup> His distinction between simple and composite propositions, which I discuss in Chapter 5, is an example of this.

<sup>6</sup> Sten Ebbesen (2009b: 49) points this out with textual evidence: In *PH*<sup>1</sup> 132.3 sqq. and In *PH*<sup>2</sup> 276.8 sqq.

<sup>7</sup> Scholars have pointed out this danger. Antony Lloyd (1990: 2, n. 2) cautions against cross-referencing Boethius' different works. Ebbesen says, "one should be cautious in

## 2. Boethius and the Aristotelian Tradition in the West

Boethius' important role in the transmission of Aristotle in the West is widely acknowledged. Before Boethius, there were some attempts to introduce Aristotle's philosophy in Latin. However, as far as we know, Boethius' first commentary is the first Latin one written on Aristotle's *Peri hermeneias*. Boethius mentions Vettius Praetextatus and Albinus in his second commentary on *Peri hermeneias*.<sup>8</sup> He says that the former translated Themistius' commentary on *Prior* and *Posterior Analytics* and the latter edited Aristotelian logical works. In addition, it is highly plausible that Marius Victorinus made the first Latin translations of *Categories* and *Peri hermeneias*, though they are now lost.<sup>9</sup> None of them, however, had reached the level of accuracy and comprehension which Boethius attained in his translations and in his commentaries on Aristotle's *corpus*. As for accuracy, a comparison between the fragment of Victorinus' Latin translation of Porphyry's *Isagoge* (Appendix I of Aristoteles Latinus I 6–7) and Boethius' Latin translation of the same work (Aristoteles Latinus I 6) affirms Boethius' superiority. In the first commentary on *Isagoge*, he points out Victorinus' mistranslation of 'ἀνάλογον' as 'inrationabilis' and proposes 'proportionabilis' as an alternative.<sup>10</sup> As for comprehension, he says in the second commentary on *Peri hermeneias* that he is going to translate and comment on all the works of Aristotle's that he can get his hands on and will do the same for Plato's dialogues.<sup>11</sup> In a life that was put to an end in his mid-forties, he translated most of Aristotle's logical works into Latin: *Categories*, *Peri hermeneias*, *Prior Analytics*, *Topics*, and *Sophistical Refutations*. He also wrote commentaries on *Categories*, *Peri hermeneias*, *Topics*, and maybe *Prior Analytics*.<sup>12</sup> Furthermore, he

---

assuming consistency between the doctrines of the Aristotle commentaries and that of *Consolation of Philosophy*" (1991: 153). Vincent Spade (1996) criticizes Peter King's use of Boethius' *De trinitate* for understanding his second commentary on *Isagoge*.

<sup>8</sup> In *PH*<sup>2</sup> 3.7–4.7.

<sup>9</sup> Cassiodorus, *Institutiones* II, 3, 18: "*Categorias* idem transtulit Victorinus [ $\Phi$ : 'patricius Boethius';  $\Delta$ : 'patricius']; cuius commentum octo libris ipse quoque formavit. *Perihermenias* supramemoratus Victorinus transtulit in Latinum." Cf. Hadot 1971: 187–190.

<sup>10</sup> In *Isag*<sup>1</sup> 95.14–96.2.

<sup>11</sup> In *PH*<sup>2</sup> 79.16–80.1 (For the text, see note 22). Besides the logical works of Aristotle that he translated, Boethius' direct access to the works of the two greatest Greek philosophers is a matter of conjecture.

<sup>12</sup> For details, see the lists in Ebbesen 2008: 107 and 2009b: 36. Boethius' commentary on *Topics* is lost. As for the text that may be a fragment of his commentary on *Prior Analytics*, see Ebbesen 1981b and Shiel 1982.

translated and commented on Porphyry's *Isagoge*, which he took as an introduction to Aristotle's *Categories*.<sup>13</sup>

The influences of Boethius' translation and commentaries on *Peri hermeneias* are yet subjects for further research.<sup>14</sup> Their significance in the western tradition of logic and linguistic studies, however, is clear. Not only are his translation and commentaries virtually the first ones in Latin, his translation was the only one available in Latin until the 13th century and his commentaries were the only ones until the 12th century. People continued to cite his translation and commentaries even after William of Moerbeke made a new translation and different commentaries on the work became available, either originally in Latin or translated into Latin.<sup>15</sup> It is no wonder that his logical works were the major sources for logic in the Middle Ages. His logic also influenced grammatical studies in the Middle Ages, as it was integrated with Priscian's grammar, and was often included in commentaries on Priscian's works.<sup>16</sup> Naming Boethius' interpretation of Aristotle's logic 'logical Late Ancient Standard' and Priscian's Stoic-influenced grammatical studies 'grammatical Late Ancient Standard,' Sten Ebbesen claims that many linguistic-logic problems in the Middle Ages are regarded as the result of interactions between these two traditions.<sup>17</sup>

Boethius' role in the history of philosophy as an influential translator and commentator has raised suspicions that some misunderstanding of Aristotle in the West began with him.<sup>18</sup> These suspicions are readily explained. In general, it is almost inevitable in translations that some notions are not accurately communicated. There were cases where there was no Latin word that perfectly matched the Greek expression to be translated. In these cases, Boethius needed to coin new words or to assign new meanings to the then-current Latin words. In addition to

---

<sup>13</sup> *In Isag*<sup>1</sup> 15.2–4; *In Isag*<sup>2</sup> 167.18–20.

<sup>14</sup> Isaac (1953: 36) furnishes information about the number of the manuscripts of these commentaries, which elucidates their dissemination throughout the West.

<sup>15</sup> For medieval commentaries on *Peri hermeneias*, see Marenbon 1993, 1997b, 2000 and Braakhuis *et al.* 2003: xiv–xxv. Besides various Latin commentaries, translations of Ammonius' Greek commentary and Averroes' Arabic commentary (the so-called 'middle commentary') on the work became available in the 13th century. For lists of these translations, see Dod 1982 (from Greek into Latin) and Burnett 2005 (from Arabic into Latin). The revised or abridged versions of these lists are compiled in Appendix B in Pasnau 2010, 2: 793–797 and 814–822.

<sup>16</sup> For this integration in the 12th century, see Rosier-Catach 2005.

<sup>17</sup> Ebbesen 2007.

<sup>18</sup> I discuss these suspicions in Chapters 1–3 and 6.

differences in vocabulary, there are some differences in grammatical structure between Greek and Latin.<sup>19</sup> The most prominent one is the lack of definite articles in Latin.

In this work, I provide the original Greek text and Boethius' translation when I quote Aristotle's text in discussion. Readers with knowledge of Greek and Latin can compare the two for themselves. The Greek text of *Categories* and *Peri hermeneias* is taken from Lorenzo Minio-Paluello's edition in Oxford Classical Texts (= OCT), but I sometimes quote a different reading in the *apparatus* if Boethius obviously uses it in his translation—these readings are marked 'A.' I treated *Prior Analytics* and *Sophistical Refutations* similarly. The Greek text is taken from David Ross's edition in OCT. In Ross's edition of *Sophistical Refutations*, Boethius' readings are also marked 'A.' Ross's edition of *Prior Analytics* is published in OCT with an appendix made by Minio-Paluello, which lists Boethius' different readings. The Latin text after a slash (/) is Boethius' translation as edited by Minio-Paluello or Bernard Dod. Whenever his translation differs in a way that may affect the meaning of Aristotle's original, I point them out. It should be noted that Boethius wrote a few versions of the translation of *Peri hermeneias* as he made progress in commenting on the work,<sup>20</sup> but I simply adopt the version edited by Minio-Paluello. As for his translation of *Prior Analytics*, there remain two uncontaminated versions, i.e., *Recensio Florentina* and *Recensio Carnutensis*. Of these two versions, I principally adopt *Recensio Florentina*, i.e., the revised one.<sup>21</sup>

Mounting suspicions that Boethius misconstrued Aristotle stem from the fact that he says that he is likely to see agreements between Plato and Aristotle as the result of his translations and commentaries:

I shall translate into Roman tongue every work of Aristotle that comes into my hands and write full commentaries on all of them in the Latin language so that anything written by Aristotle, from the subtlety of the art of logic, the depth of moral knowledge, the acumen of the truth of natural knowledge [i.e., natural philosophy], I shall translate, all of them in order, and illuminate them, as it were, by the light of commenting; and I shall also put all of Plato's dialogues in Latin form, translating and commenting upon

<sup>19</sup> Differences between Greek and Latin in vocabulary are relevant to my discussion in Chapter 2, and those in grammar become crucial points in my discussion in Chapter 6.

<sup>20</sup> For the details about Boethius' translation, see Minio-Paluello 1965: x sqq.; Montanari 1984: 79–84; Magee 1989: 49 sqq.; Magee 2010a: 13–23 (§ 1).

<sup>21</sup> For these two versions, see Minio-Paluello 1958 and Minio-Paluello 1962: xi–xvi. For a comparative study of these two versions of Book one of *Prior Analytics*, see Levet 1988.

them. Once these tasks are accomplished, I would not hesitate to bring the opinions of Aristotle and Plato, as it were, into a unified concord. I would demonstrate that they, unlike most, are not in disagreement on all points—rather they agree on most and those the most important philosophically.<sup>22</sup>

This statement expresses a viewpoint typical of the Neoplatonic commentators on Plato and Aristotle.<sup>23</sup> Due to his pursuit of their compatibilities, it may be suspected that he diverges from Aristotle in his commentaries. One may claim that his exegetical mistakes are rather intentional while some mistakes in his translation may be inevitable. In this work, I assess the extent to which this suspicion is correct.<sup>24</sup>

As we can see in the passage quoted above, there is no doubt that Boethius belongs to the commentators' tradition.<sup>25</sup> Several past studies show the significance of the connections between Boethius and Greek commentators on Aristotle.<sup>26</sup> The present work proves neither how much he is indebted to his Greek predecessors nor how much he is independent of their interpretations of Aristotle. A thorough demonstration of these points shall never be given, as many logical works in late antiquity are now lost. I do not intend to make detailed comparison between Boethius and the Greek commentators,<sup>27</sup> but I attempt to show how Boethius is

---

<sup>22</sup> In *PH*<sup>2</sup> 79.16–80.6: “[E]go omne Aristotelis opus, quodcumque in manus venerit, in Romanum stilum vertens eorum omnium commenta Latina oratione perscribam, ut si quid ex logicae artis subtilitate, ex moralis gravitate peritiae, ex naturalis acumine veritatis ab Aristotele conscriptum sit, id omne ordinatum transferam atque etiam quodam lumine commentationis inlustrum omnesque Platonis dialogos vertendo vel etiam comentando in Latinam redigam formam. His peractis non equidem contempserim Aristotelis Platonisque sententias in unam quodammodo revocare concordiam eosque non ut plerique dissentire in omnibus, sed in plerisque et his in philosophia maximis consentire demonstrem.”

<sup>23</sup> Sorabji 1990a: 3. The belief in the harmony between Plato and Aristotle started much earlier and is detected among the Middle Platonists. But according to Karamanolis (2004 and 2006), it is Porphyry who first established this view.

<sup>24</sup> I discuss interpretations which involve this suspicion in Chapters 2 and 6.

<sup>25</sup> For a concise overview of the tradition, see Falcon 2005. Note that some works compiled in the CAG series are not authentic or not written by the author himself. For instance, among Ammonius' works compiled in CAG, only his commentary on *Peri hermeneias* is written by him; the other works are his students' notes on his lectures.

<sup>26</sup> Ebbesen 1981a, 1987, 1990a and 1990b; Magee 1989 (see the following discussion); Thörnqvist 2008a and 2008b (see the next note).

<sup>27</sup> Some of the issues discussed in his commentaries on *Peri hermeneias* overlap with the issues discussed in his *On Categorical Syllogism* and *Introduction to Categorical Syllogisms*. *Loca parallela* of Christina Thomsen-Thörnqvist's critical editions of these logical monographs can be used for a detailed comparison; they tell where to look at Ammonius' commentary on *Peri hermeneias* and Alexander of Aphrodisias' commentary on *Prior Analytics*.

related to the tradition of Greek commentators in *some* of his significant doctrines. Readers will find in the footnotes information about the ancient Greek commentators—Alexander of Aphrodisias, Dexippus, Porphyry and Ammonius,<sup>28</sup> whose *Peri hermeneias* commentary is the only surviving one on the work that Boethius may have accessed.<sup>29</sup>

### 3. *The Past Studies of Boethius' Commentaries on Peri hermeneias*

These commentaries have not been well studied at all, despite their distinct significance in the history of philosophy. John Magee's *Boethius on Signification and Mind* (Brill, 1989) is the exception. His book is based upon his doctoral dissertation "Truth, Discourse and Mind in Boethius" (University of Toronto, 1986), which covers more topics than the book. Since his dissertation is not published, and furthermore, he sometimes proposes a different interpretation in his published book than in his dissertation, I refer to his dissertation only when I cannot find the same information in his book. Readers will find numerous references to his works. My work, especially its first half, greatly depends upon what he has done up to two decades ago. Over the last twenty years, more critical editions, translations, commentaries, monographs, articles and databases relevant to Magee's discussions have come out. I will refer to some of these scholarly resources in criticizing some of his arguments.

Even including Magee's contribution, it is obvious that there is still a shortage of information concerning Boethius' semantics and logic. Scholars of medieval semantics and logic often mention Boethius as he introduced expressions that became popular later in the Middle Ages. They, however, furnish little explanation of what Boethius means by these expressions.<sup>30</sup> After mentioning his name, most of them swiftly move into their topics in the 12th century or later. Such a treatment of Boethius is justified insofar as analyses of the original meanings contribute little to their main discussions, but it is detrimental to our understanding when it claims that Boethius changed the history of semantics using this or that expression. Such claims excite us, but their accuracy should be tested.

---

<sup>28</sup> For obtaining an overview of the relationships among the commentators, see Chart 4, p. XXIII.

<sup>29</sup> I discuss the relationship between Boethius and Ammonius in Chapter 6.

<sup>30</sup> Maierù (1972) is a rare study that focuses on terminologies of medieval logic. It provides generally useful but short explanations of Boethius' terminologies.

Therefore, I spend many pages in this work analyzing his terminologies so that I can supplement the lack of information and possibly correct some mistaken views of Boethius' semantics and logic.

One of the reasons for the neglect of Boethius, I suppose, is that he has been regarded as an eclectic thinker: he collected various ancient sources and presented them without adding anything original.<sup>31</sup> It is true that his second commentary on *Peri hermeneias* is full of information about his predecessors' works. This, however, by no means proves that all he has done is summarize these sources. And even if he were merely a collector, it would be still important to know what he says for understanding the history of philosophy.

#### 4. *The Focus of This Work*

What are the contents of his commentaries on *Peri hermeneias*? They furnish explanations of Aristotle's *Peri hermeneias*: the first commentary is concise and the second commentary is more detailed.<sup>32</sup> Boethius gives *Peri hermeneias* the Latin title *De interpretatione* because he holds that it discusses 'interpretation' (*interpretatio*). By 'interpretation,' he means something other than our current use of the word as 'explaining the meaning of something.' He defines 'interpretation' (*interpretatio*) as 'an articulated vocal sound signifying by itself' (*vox articulata per se ipsam significans*).<sup>33</sup> He says that 'interpretation' includes speech (*oratio*), noun (*nomen*) and verb (*verbum*).<sup>34</sup> The meaning of 'an articulated vocal sound' may sound obvious to us, but it did not in his age, and the past literature does not capture Boethius' definition of 'a vocal sound' (*vox*) accurately.<sup>35</sup> I think this is a good example of the need to pay attention to his terminologies, so let me explain it briefly. In ancient times, there were different opinions about what constitutes 'a vocal sound' (*vox*).<sup>36</sup> Boethius defines a vocal sound as 'a percussion of

---

<sup>31</sup> For instance, Arens (1984: 206) and Shiel (1990) hold this view.

<sup>32</sup> For the correspondences between Aristotle's *Peri hermeneias* and Boethius' commentaries, see Chart 1, pp. xvii–xviii.

<sup>33</sup> *In PH* <sup>2</sup> 5.4–5.

<sup>34</sup> *In PH* <sup>2</sup> 6.20–25.

<sup>35</sup> For instance, L.J. Kelly (2002: 12) says that Boethius' definition of a vocal sound "echoes Plato" and Cameron (2009: 86) says that Boethius classifies the expression (*vox*), which is 'a percussion of sound,' as "air that is articulated by the tongue differently."

<sup>36</sup> For different views of a vocal sound in antiquity, see Gellius, *Noctes atticae* V, xv, [6–9], 209.12–17 = SVF II 141 and Ax 1986.



the air by the tongue that animals emit through the windpipe.<sup>37</sup> Thus he holds the Aristotelian definition of a vocal sound as ‘a percussion of the air’ (πληγὴ ἀέρος/*percussio aeris*),<sup>38</sup> not the Stoic definition as ‘percussed air’ (ἀήρ πεπληγμένος/*aer ictus*),<sup>39</sup> which Priscian, his contemporary grammarian, supports.<sup>40</sup> If the percussion is made with articulation in such a way that the vocal sounds can be written down in characters (*litterae*), the vocal sounds become a ‘locution’ (*locutio*), which is ‘λέξις’ in Greek.<sup>41</sup> Thus Boethius means ‘able to be written down in characters’ by the expression ‘articulated’ (*articulata*).<sup>42</sup> In short, ‘*articulata*’ means virtually the same as ‘*litterata*’. Priscian differs from Boethius, making a distinction between these two expressions. ‘*Litterata*’ can be written down in characters, but ‘*articulata*’ can be combined with some ‘meaning’ (*sensus*) in the mind of a speaker.<sup>43</sup> To explain the remaining part of the definition, i.e., ‘signifying by itself,’ and the components of an ‘interpretation,’ i.e., speech, noun and verb, are the tasks for the following chapters.

To put it concisely, Boethius furnishes ‘psychological and grammatical explanations of language’ in his commentaries on *Peri hermeneias*. We can expect his explanation of language to be grammatical, based on the components of ‘interpretation,’ which I explained above. In fact, his logic or his explanations of language heavily rely on the categories of noun and verb and sometimes also of conjunction. A brief look at his theory of signification gives the impression that his explanation of language is psychological. Boethius says that spoken words principally

<sup>37</sup> *In PH*<sup>2</sup> 4.18–20: “Vox est aeris per linguam percussio quae per quasdam gutturis partes, quae arteriae vocantur, ab animali profertur.” Ammonius (*In PH* 30.8–12) proposes a similar definition of a vocal sound. Porphyry (*In Harm.* 11.28–29) also defines a vocal sound as ‘a percussion of the air.’

<sup>38</sup> See Aristotle, *DA* II, ch. 8, 420b27–29: “ὅστε ἡ πληγὴ τοῦ ἀναπνεομένου ἀέρος ὑπὸ τῆς ἐν τούτοις τοῖς μορίοις ψυχῆς πρὸς τὴν καλουμένην ἀρτηρίαν φωνὴ ἐστίν.” For an analysis of this text, see Ax 1986: 122–126.

<sup>39</sup> See DL VII 55 and SVF I 74.

<sup>40</sup> Priscianus, *Inst.* I, 5.1–2: “Philosophi definiunt, vocem esse aerem tenuissimum ictum vel suum sensibile aurium.” Donatus, another major Latin grammarian, also holds the Stoic definition (*Ars maior* 603. 2–4 = 367.5–7).

<sup>41</sup> *In PH*<sup>2</sup> 5.3–22. Although Aristotle uses the terms ‘voice’ (φωνή) ‘locution’ (λέξις) ‘speech’ (λόγος), it is the Stoics who clearly differentiate them (Ax 1986: 206 sqq.).

<sup>42</sup> This definition of ‘articulated’ is similar to Donatus’ (*Ars maior* 603.2–4 = 367.5–7): “Omnis uox aut articulata est aut confusa. Articulata est, quae litteris comprehendere potest; confusa, quae scribi non potest.”

<sup>43</sup> Priscianus, *Inst.* I, 5.6–15.

signify thoughts (*intellectus*) in the mind and secondarily things (*res*) by the mediation of thoughts.<sup>44</sup> If ‘signification’ is taken as meaning, ‘a thought’ as a sense, and ‘a thing’ as a referent, this appears to be a claim that the meaning of spoken words, their reference as well as their sense, is determined by psychological phenomena, i.e., thoughts in the mind. Indeed such a view has been often ascribed to Aristotelian accounts of language. Hilary Putnam says, “The picture [of the Aristotelian account] is that there is something in the mind that picks out the objects in the environment that we talk about. When such a something (call it a ‘concept’) is associated with a sign, it becomes the meaning of the sign.”<sup>45</sup>

Boethius says, moreover, that the noun and the verb exist not only among spoken and written words but also in the mind. His psychological explanation and grammatical analysis of language merge at this notion of ‘mental noun’ and ‘mental verb.’ He appears to suggest that not only the meaning of words but also the syntax of a language is ultimately based upon psychological phenomena.

Boethius’ explanations of language may face modern challenges for the very reason that they are psychological and grammatical.

Gottlob Frege, who set up the foundations of predicate logic, claims this:

To sum up briefly, it is the business of the logician to conduct an unceasing struggle against psychology and parts of language and grammar in so far as they do not bring what is logical purely into expression.<sup>46</sup>

In this statement, Frege expresses the view that psychology and the grammar of a natural language bring difficulties into the study of logic. Opposition to bringing any psychological elements into logic is called ‘anti-psychologism.’ Frege holds that the goal of logic is to set up laws of valid inference that lead anyone to the truth at anytime in any place.<sup>47</sup> Psychological phenomena such as mental acts and ideas, on the other hand, are subject to fallacy and are subjective. Acts of judgment are sometimes right and sometimes wrong;<sup>48</sup> psychological states (*seelische Vorgänge*) such as representations (*Vorstellungen*) in one’s mind can never

---

<sup>44</sup> In *PH*<sup>2</sup> 33.27–31.

<sup>45</sup> Putnam 1988: 19.

<sup>46</sup> NS 7= PW 6–7. For the original German text, see epigraph.

<sup>47</sup> NS 3 = PW 3.

<sup>48</sup> NS 2= PW 2.

be entertained in the same way by anyone else.<sup>49</sup> If words expressed only representations in the mind, any real communication using language would be impossible.<sup>50</sup>

There are great variances in the grammars of natural languages.<sup>51</sup> According to Frege, the differences arise due to the admixture of psychological elements into grammar.<sup>52</sup> Hence, the struggle against the psychological necessarily involves the struggle against the grammar of natural languages insofar as grammar is mixed with psychology. An example of such ingredients of grammar as should be excluded from logic is the subject-predicate distinction, which has been employed in classical Aristotelian logic.<sup>53</sup>

Bertrand Russell shows a similar concern in regard to grammar:

The purpose of the foregoing discussion of an ideal logical language (which would of course be wholly useless for daily life) is two-fold: first, to prevent inferences from the nature of language to the nature of the world, which are fallacious because they depend upon the defects of language.<sup>54</sup>

Because the syntax of Indo-European languages takes the form of a subject and a predicate united by a copula, Russell claims that it leads one to hold a monistic metaphysical view that the world consists in substances and attributes. One infers the existence of some substance from the subject of the sentence and that of some accident inhering in the substance from the predicate of the sentence.<sup>55</sup> But it is possible that the world consists not only of substances and attributes but also of relations such as that *x* loves *y* or that *x* kills *y*. As a result of his doctrine of types, Russell claims that we should hold a pluralistic metaphysical view of the world, which accepts the existence of relations.<sup>56</sup>

From the modern (Fregean-Russellian) perspective, a large part of Boethius' commentaries on *Peri hermeneias* should be discarded. His psychological account of language renders the meaning and syntax into something 'private' and 'subjective'; his heavy reliance on grammatical

---

<sup>49</sup> NS 3–4 = PW 3.

<sup>50</sup> *Grundgesetze der Arithmetik*, xix = *The Basic Laws of Arithmetic* (Furth tr.), 17.

<sup>51</sup> NS 6 = PW 7.

<sup>52</sup> NS 6 = PW 6.

<sup>53</sup> NS 155 = PW 143.

<sup>54</sup> Russell 1956: 338. But the early Russell, i.e., in *The Principles of Mathematics*, has much trust in the surface grammar of natural languages. For the change of Russell's view, see Candlish 2001.

<sup>55</sup> Russell 1956: 330.

<sup>56</sup> Russell 1956: 339.

categories is hardly suitable for logic and its goal of objective knowledge. In fact, semantics and logic of the Aristotelian tradition, which Boethius is largely responsible for, have been criticized for conflating logic with grammar and committing ‘psychologism’—the idea that language ultimately grounds itself upon psychological phenomena.<sup>57</sup>

As a study of Boethius’ commentaries on *Peri hermeneias*, this work intends to furnish detailed interpretations of his psychological and grammatical explanations of language. The principal task is to explain what they are and then to see whether they are coherent and philosophically convincing in face of the modern challenge as I explained above. The secondary task is to assess whether they changed the history of semantics and logic; in other words, I will judge whether Boethius was a radical transformer of Aristotle’s semantics and logic.

This book consists of two parts. The first part, ‘Boethius on Words and Mind,’ deals with problems concerning Boethius’ psychological explanation of language. The second part, ‘Boethius on Logic and Grammar,’ deals with problems concerning Boethius’ grammatical analysis of language. Each part consists of three chapters. While Boethius is generally underappreciated, the psychological aspects of Boethius’ explanation of language have drawn the attention of scholars such as Norman Kretzmann and John Magee. Norman Kretzmann first interprets Boethius’ texts and raises questions, which John Magee discusses critically in his book *Boethius on Signification and Mind*. Thus, in the three chapters of Part 1, I start with Kretzmann’s interpretations and questions on Boethius’ texts and propose what I believe are better interpretations than Magee’s. The main texts analyzed in these three chapters are Boethius’ translation and commentaries on chapter 1 of *Peri hermeneias* (16a3–18). In Chapter 1, I intend to furnish terminological and philosophical basics of Boethius’ theory of signification. I start with Kretzmann’s claim that ‘signify’ (*significare*) has the technical meaning of ‘sense’ distinct from ‘reference’ in Boethius’ works. As we will see, Kretzmann takes ‘thought’ and ‘thing’ in Boethius’ texts to mean ‘sense’ and ‘referent.’ Were this claim true, Boethius’ notion of ‘signification’ would be utterly psychological because spoken words ‘signify’ mental entities exclusively, not extramental things at all. In addition to ‘signify,’ I analyze various Latin expressions in use for semantic relations to justify my translations of

---

<sup>57</sup> E.g., Putnam 1988 (part of which is cited on page 10) and Ackrill 1963: 113; 118 (cited in Chapter 4, § 1, p. 117); 127 (cited in Chapter 5, § 4, p. 157).

them. My survey shows that Kretzmann is wrong on this terminological issue. Boethius says that spoken words ‘signify’ things by the mediation of thoughts. I discuss implications of his fundamental semantic thesis, which is often expressed by a ‘semantic triangle.’ In Chapter 2, I discuss the problems concerning Boethius’ translation of ‘σύμβολον’ and ‘σημείον’ as ‘*nota*.’ Kretzmann claims that failing to pay attention to the difference between the two Greek expressions is a serious mistranslation and it affected the history of semantics. As Magee addresses,<sup>58</sup> Boethius’ choice of the word ‘*nota*’ seems to be relevant to the psychological orientation of his semantics because ‘*nota*’ is derived from the verb ‘*noscere*,’ i.e., ‘to know,’ which presupposes the ‘knowing mind.’ In Chapter 2, I examine the issues of this ‘mistranslation’ and his reasons for choosing ‘*nota*.’ Through the philological survey, I hope to show the relevance of his doctrine of ‘three types of speech’—written speech, spoken speech and mental speech—to his choice of the word ‘*nota*.’ In Chapter 3, I articulate my interpretation of his doctrine of three types of speech. I begin my discussion with Kretzmann’s three questions concerning this doctrine and furnish answers to them. Concerning mental speech, I disagree with Magee’s interpretation. Chapter 3 provides philosophical defense for my guess as to Boethius’ intention in choosing ‘*nota*.’ The chapter also links between the first part and the second part of this book. As I have already mentioned, Boethius claims not only that there is mental speech but also that there is a noun and a verb in mental speech. To understand what he means by ‘a noun and a verb in mental speech,’ we will have to go into his definitions of noun and verb. Then, we face a question concerning the relationship between logic and grammar. Does he make a clear distinction between logic and grammar in using ‘noun,’ ‘verb,’ ‘conjunction’ and ‘speech’? In other words, how do his definitions of ‘noun,’ ‘verb,’ ‘conjunction,’ ‘speech’ and ‘one sentence’ differ from our common-sense notions and the then-current grammatical definitions of these linguistic items? I pursue this question in the first two chapters of Part 2 (Chapters 4 and 5). In Chapter 4, I discuss the components of speech, i.e., noun, verb and conjunction. The main texts analyzed in Chapter 4 are his commentaries on chapters 2 and 3 of *Peri hermeneias*. In Chapter 5, I discuss his various classifications of speech, focusing on his commentaries on *Peri hermeneias*, chapters 4, 5 and 8 and on the beginning part of chapter 11 (20b12–22). These two chapters show that Boethius’s logic is based on the

---

<sup>58</sup> Magee 1989: 56–67.

logical categories of noun, verb and conjunction, which he clearly distinguishes from grammatical ones. In Chapter 6, I discuss how the verb 'to be' is placed in his logic system of noun, verb and conjunction. Lambert Marie de Rijk claims that Boethius' logic contains the notion of the copula 'is,' learning it from Ammonius' commentary on *Peri hermeneias*. Logically speaking, a copula that stands between a subject and a predicate is a conjunction rather than a verb. It may be suspected that Boethius regards 'to be' as a verb because grammar treats it as such. The main texts analyzed in Chapter 6 are his commentaries on the last part of chapter 3 (16b19–25) and a part of chapter 10 of *Peri hermeneias* (19b10–22). Chapter 7 furnishes summaries of my interpretations of Boethius' semantics and logic from philosophical as well as historical perspectives. The meaning of 'mental noun' and 'mental verb' will be explained fully in this final chapter, bridging the gap between Parts one and two like a keystone. The last chapter will connect the different issues and will reveal Boethius' concept of logic, which, although very different from modern logic, is a rather coherent system and does not easily surrender to modern challenges. It is true that his logic or his explanations of language are not purely Aristotelian due to the influences of the traditions after Aristotle. He changed the history of semantics and logic to that extent. Throughout the book, I argue that he did not misconstrue Aristotle to the extent that the past studies (by Kretzmann, Magee and De Rijk) have claimed he did, thereby restoring some respectability to this often overlooked philosopher.

PART ONE

BOETHIUS ON WORDS AND MIND





## CHAPTER ONE

### THE SIGNIFICATUM OF SPOKEN WORDS

#### 1. Introduction

Boethius holds that the subject of *Peri hermeneias* is the simple declarative sentence (*simplex enuntiatiua oratio*).<sup>1</sup> He says that the simple declarative sentence is called a ‘categorical proposition’ (*propositio categorica*) in Greek and a ‘predicative proposition’ (*propositio praedivativa*) in Latin.<sup>2</sup> The simple declarative sentence is a sub-species of the declarative sentence, which he calls an ‘enunciation’ (*enuntiatio*) or a ‘proposition’ (*propositio*).<sup>3</sup> I would like to set aside what he means exactly by ‘a simple sentence or proposition’ for now, as this issue is not as easy as it may look, and I will go into it in Chapter 5. So let us instead begin with his definition of a ‘proposition.’

In defining a declarative sentence, i.e., ‘a proposition,’ Boethius says, “A proposition is a speech (*oratio*) signifying (*significans*) the true (*verum*) or the false (*falsum*).”<sup>4</sup> In discussing this definition, Boethius mentions ‘truth’ (*veritas*) and ‘falsity’ (*falsitas*) interchangeably with ‘the true’

---

<sup>1</sup> *In PH*<sup>1</sup> 33.27–34.3; *In PH*<sup>2</sup> 14.14–15.

<sup>2</sup> *In PH*<sup>2</sup> 112.11–13. He explains the Greek and Latin names in *In PH*<sup>2</sup> 186.13–24.

<sup>3</sup> E.g., “enuntiationes vel propositiones” (*In PH*<sup>1</sup> 33.17); “propositionem, quod est enuntiatio” (*In PH*<sup>2</sup> 121.30). Nuchelmans (1973: 131) says that Boethius treats these two expressions synonymously, but Righi (1984: 69) and Thörnqvist (2008b: 119–120) say that he does not. They draw our attention to *De cat. syll.* 14.15 = 797c: “enuntiatio uero sola aut uerum continet aut falsum, atque hinc propositiones oriuntur.” Boethius translates ‘πρότασις’ as ‘*propositio*’ (e.g., *PrA*, tr., AL III-1, 138.11, see notes 24 and 73 of Chapter 2; *PrA*, tr., AL III-1, 6.10, see note 114 of Chapter 5) while he translates ‘ἀπόφανσις’ as ‘*enuntiatio*’. If he followed the use of the Greek equivalents, Boethius’ ‘*propositio*’ would mean ‘a declarative sentence with the function of a premise’ while ‘*enuntiatio*’ would mean simply ‘a declarative sentence.’ Even if ‘*enuntiatio*’ and ‘*propositio*’ are not synonymous, these two terms stand for the same type of sentence, and Boethius gives the same definition to them both. Hence, I will take these two expressions equivalently in the following discussions.

<sup>4</sup> *De top. diff.* 2.22 = 1174b: “Propositio est oratio verum falsumve significans.” The same definition with the expression ‘enunciation’ is seen in the commentaries. E.g., *In PH*<sup>2</sup> 120.21–22: “[E]st enuntiatio vox significativa verum et falsumque significans.”

(*verum*) and ‘the false’ (*falsum*).<sup>5</sup> It seems, therefore, that Boethius defines a declarative sentence as a speech signifying a truth-value. His definition agrees with Aristotle’s characterization of a declarative sentence (λόγος ἀποφαντικός) as that in which there is saying something true (ἀληθεύειν) or false (ψεύδεσθαι).<sup>6</sup>

Norman Kretzmann claims that Boethius, with this definition of a proposition,<sup>7</sup> opens the way for ‘*dictism*,’ a particular understanding of medieval logic which presupposes the modern (Fregean) distinction of sense and reference and can be labeled as ‘a theory of propositional sense.’ Kretzmann characterizes ‘*dictism*’ as the development of semantic doctrines ‘centering around the notion of the *significatum*, or *enuntiabile* or *dictum* of the proposition.’<sup>8</sup> Apparently, he obtains the name ‘*dictism*’ from ‘*dictum*,’ famously proposed by Peter Abelard as the content of a proposition.<sup>9</sup> Kretzmann contrasts ‘*dictism*’ with ‘*terminism*,’ characterizing the latter as a ‘theory of propositional reference.’ In his definition, ‘*terminism*’ is “an elaborate analysis of the ways in which all the words making up the proposition affect one another’s reference or logical status.”<sup>10</sup> He probably names ‘*terminism*’ after ‘*terminus*’ with William of Ockham in mind because he introduces ‘*terminism*’ with the following

<sup>5</sup> E.g., *In PH*<sup>2</sup> 120.9–121.5. He says, “[V]eritas et falsitas invenitur” in line 120.19. In the first commentary on *Peri hermeneias*, he explicitly claims that a negation, which is a species of proposition, is signifying truth and falsity (*In PH*<sup>1</sup> 43.10–11). He also uses the term ‘lie’ (*mendacium*) for falsity in *In PH*<sup>2</sup> 99.7–10 (see note 41 of this chapter).

<sup>6</sup> *PH*, ch. 4, 17a2–3: “ἀποφαντικός δὲ οὐ πᾶς, ἀλλ’ ἐν ᾧ τὸ ἀληθεύειν ἢ ψεύδεσθαι ὑπάρχει.” / 8.8–9: “enuntiatiua vero non omnis, sed in qua verum vel falsum inest.” Note that Boethius’ translation says that there is something true or false, rather than saying something true or false. The translated definition is similar to Cicero’s definition of the Stoics’ axiom or proposition (ἀξιῶμα): “id ergo est pronuntiatum, quod est verum aut falsum” (*Tusc.* I, vii [14]). For Cicero’s definition of a proposition, see Johanson & Londey 1988.

<sup>7</sup> Note that Kretzmann (1970: 771) translates the definition slightly differently from the above: “A proposition is a speech signifying *what is true or what is false*.” According to the translation, what is signified by a proposition is the bearer of a truth-value rather than the truth-value itself. As I will show later in this chapter (§ 4.3), this is true because the truth-value is signified insofar as the bearer is signified, but Kretzmann’s translation says more than what Boethius says literally.

<sup>8</sup> Kretzmann 1970: 767.

<sup>9</sup> Abelard, *In PH* 365.34–36 (italics added): “Duo itaque volumus significari a propositione, intellectum scilicet quem generat de rebus, et *id insuper quod proponit et dicit*, scilicet quem genera de rebus, et *id insuper quod proponit et dicit*, scilicet hominem esse animal vel non esse.” What ‘*dictum*’ is is a controversial topic among scholars of Abelard. For discussion, see De Libera 1981, Marenbon 1997a: 202–209, Rosier-Catach 2004b: 26–34.

<sup>10</sup> Kretzmann 1970: 767.

text in Ockham's commentary on *Peri hermeneias*: "We should understand that a proposition is some composite not as a unit in itself but as put together out of a subject, a predicate, and a copula, which so to speak, joins the subject together with the predicate."<sup>11</sup> In the text, a proposition is claimed to be a composite of the parts of the proposition, i.e., a subject, a predicate and a copula, rather than a unit. Kretzmann says that this type of characterization of a proposition may be called 'the Aristotelian definition' because it reflects Aristotle's analysis of a proposition in *Peri hermeneias* (17a20, 17a25) and *Prior Analytics*: a proposition consists in that which is said (the predicate) and that of which something is said (the subject). The characterization also fits in with the structure of the opening chapters of *Peri hermeneias*. Aristotle discusses the noun and the verb (ch. 2–3), which are constituents of a proposition, before explaining the proposition itself (ch. 4). According to Kretzmann, the approach of the Aristotelian definition considers the meaning of each word of the proposition within the proposition to understand its overall meaning: "an account of the meaning of the proposition is built up out of accounts of the meanings of all the words in their occurrences in the proposition."<sup>12</sup> Thus, this approach is similar to Frege's compositional principle that the sense and the reference of a sentence are built up from those of all the words in the sentence.<sup>13</sup> Neither Frege's compositional principle nor the Aristotelian definition by itself endorses a theory of propositional sense more than a theory of propositional reference. Apparently associating the Aristotelian definition with the theory of supposition, Kretzmann claims that 'terminism' is 'a theory of propositional reference.' The theory of supposition begins in the 12th century,<sup>14</sup> but is highly developed later in the 14th century by people such as William of Ockham and John Buridan. Ockham's theory of supposition is described as "a theory about what things a term may stand for and how it stands for them in various sorts of propositions."<sup>15</sup> Kretzmann says, "I believe that medieval logicians

<sup>11</sup> Because of the unavailability of the critical edition at that time, Kretzmann says that it is quoted from *Expositio aurea*, Bononiae 1496, fol. 97<sup>va</sup>, which is now in the Franciscans' critical edition, *In PH I*, c.3, 389.17–19.

<sup>12</sup> Kretzmann 1970: 768.

<sup>13</sup> For instance, see Frege, *Letter to Jourdain*, in Beaney 320 [127]: "The possibility of our understanding propositions which we have never heard before rests evidently on this, that we construct the sense of a proposition out of parts that correspond to the words."

<sup>14</sup> See De Rijk 1967.

<sup>15</sup> Adams 1987: 327–328.

produced a theory of reference and a theory of sense for proposition, but in two separate developments, without recognizing that the theories were complementary.”<sup>16</sup>

Until Chapter 5, I will set aside the task of assessing the legitimacy of the claims that Boethius introduced the proposition-oriented approach of logic to the West and that he did not merge it with the term-oriented approach of logic. This issue is rather large. To respond to these claims, we need to look at different aspects of his logic. In this first chapter, I will examine the fundamental assumption in Kretzmann’s interpretation concerning Boethius’ notion of ‘*significatum*.’ The purposes of this first chapter are (i) to determine the meanings of basic terms used frequently in Boethius’ logical works so as to justify my translations of these terms used in the following chapters and (ii) to present one of the fundamental theses and one of the principles of Boethius’ semantics, which shall be presupposed and confirmed in my discussions in the following chapters. I will call his explicit claim ‘his thesis’ and his implicit claim ‘his principle.’

## 2. Kretzmann’s Interpretation of ‘Significatum’

Kretzmann says that ‘signifying’ (*significans*) in the definition of a proposition is a technical expression that began with Boethius, distinguishing that which signs convey (‘sense’) from that for which any sign may stand (‘reference’). As evidence for the technical usage, he quotes a sentence from Boethius’ second commentary on *Peri hermeneias*:

Insofar as a vocal sound (*vox*) itself signifies (*significat*) thoughts, the vocal sound is divided into the two parts (as has been said), i.e., a noun and a verb; insofar as the vocal sound points out (*demonstrat*) things subjected to the intellect through the mediation of thoughts, Aristotle has divided the number of the significative vocal sounds into ten categories.<sup>17</sup>

In this text, Boethius uses ‘point out’ (*demonstrare*) for spoken words to designate things and ‘signify’ (*significare*) for them to convey thoughts. From this example, Kretzmann infers that ‘*significare*’ is used technically for that which a sign conveys, i.e., a thought (‘sense’) while ‘*demonstrare*’ is used for that which a sign stands, i.e., a thing (‘reference’).

<sup>16</sup> Kretzmann 1970: 767.

<sup>17</sup> In *PH*<sup>2</sup> 7.12–18. This text is cited partially by Kretzmann (1970: 772) from PL 64, 395b. The Latin text is cited in note 34 of this chapter.

Kretzmann sees the Stoics' influence in this technical use of '*significare*'. He acknowledges that the 'Boethian definition' of a proposition has its root in chapter 4 of Aristotle's *Peri heremenias* (17a2–3),<sup>18</sup> but at the same time, he claims that the Stoics influenced his definition.<sup>19</sup> The Stoic 'axiom' (ἄξιωμα) is a sayable (λεκτόν) that is either true or false,<sup>20</sup> and a sayable (λεκτόν) is a thing signified (σημαινόμενον), i.e., '*significatum*' in Latin. In *Stoic Logic*, to which Kretzmann seems to be very much indebted,<sup>21</sup> Benson Mates says that the Stoics' 'σημαινόμενον' is different from extramental things and equivalent to 'sense' in Frege or 'intension' in Carnap.<sup>22</sup> Aristotle, on the other hand, uses 'signify' (σημαίνειν) ambiguously. Often he is not clear about whether 'σημαινόμενον' is distinct from an extramental thing or not. That is to say, when Aristotle says, "x signifies (σημαίνει) γ," γ can be often taken as a mental state, a non-mental object, or both.<sup>23</sup>

For Kretzmann's claim, the ontological status of the *significatum* does not matter. He mentions later in the article that there were discussions in the Middle Ages over the ontological status of what is signified (*significatum*), what is enunciated (*enuntiabile*) or what is said (*dictum*), and whether they are linguistic entities, mental entities, extra-mental entities, or something else *sui generis*.<sup>24</sup> He presumably knows that a *significatum* in Boethius is a thought (*intellectus*) that exists in our minds, as we see in the text he quoted.<sup>25</sup> Frege's 'sense,' on the other hand, has been

<sup>18</sup> See note 6 of this chapter.

<sup>19</sup> Kretzmann 1970: 771, n. 6. Ebbesen (2004: 119) holds the same opinion, calling the definition "a modified version of the Stoic definition of an *axiōma*." He says 'modified' because the Stoic 'axiom/proposition' is different from Boethius' proposition. The Stoic 'axiom/proposition' corresponds to the content of Boethius' 'proposition.'

<sup>20</sup> For the Stoics' definition of an 'axiom/proposition,' see Gourinat 1999.

<sup>21</sup> Kretzmann (1970: 771, n. 6) refers to Mates 1953.

<sup>22</sup> Mates 1953: 19–26. The major textual source for this claim is Sextus Empiricus, *Adv. math.* VIII 11–12: "τρία φάμενοι συζυγεῖν ἀλλήλοις, τό τε σημαίνόμενον καί τὸ σημαῖνον καί τὸ τυγχάνον, ὧν σημαῖνον μὲν εἶναι τὴν φωνήν, οἷον τὴν Δίων, σημαίνόμενον δὲ αὐτὸ τὸ πρᾶγμα τὸ ὑπ' αὐτῆς δηλούμενον καί οὗ ἡμεῖς μὲν ἀντιλαμβάνομεθα τῇ ἡμετέρᾳ παρυσισταμένου διανοίᾳ." In this text, Mates finds the distinction between sense and reference in the expression 'Dion.' Frede (1994: 119–120) criticizes Mates's interpretation. Frede says that the Stoics do not hold the person Dion himself as a referent of the expression 'Dion,' but rather a truth-maker of a proposition containing the expression 'Dion.'

<sup>23</sup> Graeser (1978: 82) makes a similar explanation saying that the Stoic use of 'σημαίνειν' means 'connote' rather than 'denote' while Aristotle uses the word ambiguously.

<sup>24</sup> Kretzmann 1970: 777–779. For the details of the controversies in the 12th century, see Nuchelmans 1973: ch. 10 and Iwakuma 1997.

<sup>25</sup> See the text of note 17 quoted by Kretzmann.

widely understood as a non-mental entity,<sup>26</sup> and current scholars claim that Abelard's *dictum* and the Stoics' λεκτόν are also non-mental entities.<sup>27</sup> Kretzmann's point lies in that the thing designated by a sign ('referent') is distinct from the *significatum* ('sense'), i.e., the thing *signified* by the sign. Acknowledging that the technical use does not exhaust the whole meaning of '*significare*,'<sup>28</sup> Kretzmann virtually claims that Boethius uses '*significatio*' and '*significare*' in two ways: (1) 'meaning' or 'to mean,' which, I understand, comprises 'sense' as well as 'reference,' and technically as (2) 'sense.'<sup>29</sup>

### 3. Is '*Significare*' a Technical Expression for '*Sense*'?

To assess Kretzmann's claim that '*significare*' is a technical expression for 'sense' distinct from 'reference' in Boethius' works, I will look at his use of the words, '*significare*,' '*designare*,' '*demonstrare*' and '*monstrare*.'

In his Latin translation of *Peri hermeneias*, Boethius always translates 'σημαίνειν' (signify) by '*significare*.' But he sometimes (17a16, 18, 17b8) uses '*significare*' also for 'δηλοῦν' (indicate, show, or reveal), which he once (16a28) also renders as '*designare*.'<sup>30</sup>

In the following text of Boethius' second commentary on *Peri hermeneias*,<sup>31</sup> we find quite a few uses of '*significare*,' '*designare*,' and '*demonstrare*.' In order to retain the original lexical differences, I will provisionally translate '*significare*' as 'to signify,' '*designare*' as 'to designate,' and '*demonstrare*' as 'to point out':

- (i) Insofar as a vocal sound itself signifies (*significat*) thoughts, the vocal sound is divided into the two parts (as is said), a noun and a verb; insofar

<sup>26</sup> Famously, the sense of a sentence, a thought (*Gedanke*), is placed 'in the third realm' (Frege, "Thought," in Beaney 69 [336–337]). But some scholars, e.g., Tyler Burge (1992) and Wolfgang Carl (1994), do not take this as an ontological claim.

<sup>27</sup> For the Stoics' λεκτόν, see LS 1: 201, Barnes 1993 and Frede 1994: 118. An early interpretation such as Nuchelmans (1973: 85–87) holds that the λεκτόν is nothing more than a mental impression, but this interpretation is now rejected. For Abelard's *dictum*, see Marenbon 1997a: 207, King 2004: 105–108.

<sup>28</sup> Kretzmann 1970: 771: "Boethius and the medievals sometimes used the words '*significatio*' and '*significare*' as their broadest semantic terminology, much as we use the words 'meaning' and 'to mean.'"

<sup>29</sup> Kretzmann 1970: 771–772.

<sup>30</sup> This usage (16a28) comes from where Aristotle claims that inarticulate vocal sounds of beasts *reveal* (δηλοῦν) something. Cf. Aristotle uses 'σημαίνειν' for emotional vocal sounds of beasts while 'δηλοῦν' for speech of human beings in *Pol.* I, ch. 2, 1253a9–15.

<sup>31</sup> Kretzmann refers to the beginning part of this text. See the text of note 17.

as the vocal sound (*vox*) points out (*demonstrat*) things subjected to the intellect (*intellectus*) through the mediation of the thoughts, Aristotle has divided the number of the significative vocal sounds (*voces*) into ten categories. Now, the intention of this work differs from the collections of categories into a set of ten in that here only the number of the significative vocal sounds is to be investigated only insofar as it pertains to these vocal sounds by which thoughts of the mind (*animus*) are designated (*designentur*);<sup>32</sup> these vocal sounds are namely simple nouns, verbs and utterances composed of them. But the intention of the categories is this: [it is] only about vocal sounds significative of things insofar as a mediating thought of the mind signifies (*significet*) them. In fact, the noun and the verb are certain qualities of a vocal sound, which themselves surely signify the ten categories. For, indeed, the ten categories are never brought forth without some quality—either that of the verb or that of the noun. This is why the intention of this work will be about significative vocal sounds insofar as they signify (*significent*) conceptions (*conceptiones*) of the mind (*animus*) and the intellect (*intellectus*). The intention of the work on ten categories has been told in the commentary on this said work. Since it is about vocal sounds significative of things,<sup>33</sup> [the intention is to show] in how many parts their signification can be divided insofar as those very vocal sounds are capable of designating (*designare*) through the mediation of senses and thoughts the things that are subject to those thoughts.<sup>34</sup>

<sup>32</sup> In quite a few contexts, '*animus*' seems to be interchangeable with '*anima*' and thus to mean the human soul as a whole. For instance, Boethius says '*passio animi*' as if to say '*passio animae*' (*In PH*<sup>2</sup> 13.8; 58.1), and he mentions '*animus*' before and after talking about '*anima*' (e.g., *In PH*<sup>1</sup> 37.7; 39.2; *In PH*<sup>2</sup> 11.21; 13.8; 34.14). It can make perfect sense to take '*animus*' in these instances as '*anima*.' Meiser lists them in the index of his critical edition of the two commentaries on *Peri hermeneias*: '*anima et animus promiscue*.' As far as I can see (Cf. Gersh 1986, 2: 708, n. 268), however, no instance of '*animus*' in Boethius' works rejects interpretation as the rational part of the human soul. Moreover, '*animus*' is never used for non-rational psychological substances, whereas '*anima*' is. Considering these characteristics of usage, I consistently render '*animus*' as 'the mind.'

<sup>33</sup> A supposed reference is *In Cat.* 159c–d: "Et in quantum vox ipsa quidem intellectus significat, in duas (ut dictum est) secatur partes, nomen et verbum, in quantum vero vox per intellectum medietatem subiectas intellectui res demonstrat, significantium vocum Aristoteles numerum in decem praedicamenta partitus est. In hoc igitur opere, haec intentio est, de primis rerum nominibus, et de vocibus res significantibus, non in eo quod secundum aliquam proprietatem figuramque formantur, sed in eo quod significantes sunt." But Monika Asztalos, who is editing Boethius' commentary on *Categories*, claims that the reference may not be this text from *Patrologia Latina*. She (1993: 380) says, "there remains the possibility that he [Boethius] is referring in *De int.* 2 [here] to an explanation of the scope of the *Categories* given in a (now lost) work of his own," because, she says, "there the scope of the *Categories* was described without any mention of concepts" (*ibid*). Hadot (1959) claimed that he found a fragment of the lost work.

<sup>34</sup> *In PH*<sup>2</sup> 7.12–8.7: "Et quantum vox ipsa quidem intellectus significat, in duas (ut dictum est) secatur partes, nomen et verbum, in quantum vero vox per intellectum medietatem subiectas intellectui res demonstrat, significantium vocum Aristoteles numerum

In this passage, Boethius explains the different purposes of Aristotle's logical works, *Peri hermeneias* and *Categories*. Both of these works deal with spoken words but approach them differently. *Peri hermeneias* considers spoken words insofar as they signify *thoughts* in the mind while *Categories* considers them insofar as they signify *things* through those thoughts.<sup>35</sup>

Look at the examples of '*designare*' and '*significare*' in this text. In the contemporary philosophy of language, we use '*designate*' for reference—pointing out a thing outside the mind<sup>36</sup>—but this is not the case for Boethius. He uses '*designare*' and '*significare*' interchangeably: for pointing out a thing outside the mind as well as a thought in the mind. He says that spoken words *designate* thoughts, but he says a few lines later that they *signify* thoughts. He says that spoken words *signify* things and, soon after says that they *designate* things. Using different textual evidence, John Magee reaches the same conclusion as mine.<sup>37</sup> Hereafter, therefore, I am going to translate '*designare*' also as '*to signify*' whenever it is appropriate in the context.

Given these examples, it is difficult to claim that '*significare*' has the technical meaning of '*sense*' in Boethius' works. If '*significare*' had such a technical meaning, Boethius would have kept the word for the semantic relation of spoken words to thoughts in the mind ('*sense*') while choosing another word for the semantic relation of spoken words to things ('*refer-*

---

in decem praedicamenta partitus est. Atque hoc distat libri huius intentio a praedicamentorum in denariam multitudinem numerositate collecta, ut hic quidem tantum de numero significantium vocum quaeratur, quantum ad ipsas attinet voces, quibus significativis vocibus intellectus animi designentur, quae sunt scilicet simplicia quidem nomina et verba, ex his vero compositae orationes: praedicamentorum vero haec intentio est: de significativis rerum vocibus in tantum, quantum eas medius animi significet intellectus. Vocis enim quaedam qualitas est nomen et verbum, quae nimirum ipsa illa decem praedicamenta significant. Decem namque praedicamenta numquam sine aliqua verbi qualitate vel nominis proferuntur. Quare erit libri huius intentio de significativis vocibus in tantum, quantum conceptiones animi intellectusque significant. De decem praedicamentis autem libri intentio in eius commentario dicta est, quoniam sit de significativis rerum vocibus, quot partibus distribui possit earum significatio in tantum, quantum per sensuum atque intellectum medietatem res subiectas intellectibus voces ipsae valeant designare."

<sup>35</sup> He has a different idea about these two works in his commentary on *Categories* (162d–163b). For the difference, see Chapter 4, note 63.

<sup>36</sup> For instance, "A proper name expresses its sense, stands for (*bedeutet*) or designates (*bezeichnet*) its reference" (Frege, "On Sinn and Bedeutung," in Beaney 156 [31], German original insertion mine).

<sup>37</sup> Magee 1989: 62.



ence'). The fact that he keeps using '*significare*' for the two relations shows that he does not take '*significare*' as a technical expression for 'sense' as in the contemporary philosophy of language.

As for '*demonstrare*,' it may be observed that Boethius uses the expression for the semantic relation of spoken words to things and truth-values, but not for the semantic relation of spoken words to thoughts. In text (i), he says, "the vocal sound (*vox*) points out (*demonstrat*) things subjected to the intellect." Moreover, he says:

(ii) For everything that posits that it is something (for instance, when I say, "It is day") or that says that it is not something (for instance, when I say, "It is not day"), it *points out* (*demonstrat*) the true and the false.<sup>38</sup>

(iii) For, if things are impossible, propositions that *point out* (*demonstrant*) those things are called 'impossible'.<sup>39</sup>

In text (ii), the subject that *points out* a truth-value is a proposition or spoken words that make up a proposition. In text (iii), he says that propositions that *point out* impossible *things* are impossible propositions.

Boethius often uses the expression '*monstrare*,' from which the word '*demonstare*' is derived, in a way similar to '*demonstrare*.' That is to say, he uses '*monstrare*' mostly for the semantic relations of spoken words to things and truth-values. He does, however, use the expression once for the semantic relation of spoken words to thoughts:

(iv) '*Rectus*' [for '*rectus casus*', i.e., the nominative case], which is the first, indicates (*monstrat*) a thing, as when one says "Socrates."<sup>40</sup>

(v) An affirmation and a negation participate equally in enunciation since enunciation employs signification of the true and the false, and [since] affirmation and negation equally indicate (*monstrat*) truth and falsity (*mendacium*).<sup>41</sup>

<sup>38</sup> In *PH*<sup>2</sup> 120.15–18 (single quotation marks added): "Omne enim quod esse ponit aliquid, ut si dicam 'dies est', vel non esse, ut si dicam 'dies non est', verum falsumque demonstrat."

<sup>39</sup> In *PH*<sup>2</sup> 188.23–25: "Quod si res impossibiles sunt, propositiones quae illas res demonstrant impossibiles nominantur."

<sup>40</sup> In *PH*<sup>2</sup> 64.23–24: "Rectus vero qui est primus rem monstrat, ut si qui dicat Socrates."

<sup>41</sup> In *PH*<sup>2</sup> 99.7–10: "Sed adfirmatio atque negatio aequaliter enuntiatione participant, siquidem enuntiatio veri falsique utitur significatione et adfirmatio et negatio veritatem atque mendacium aequaliter monstrat." Augustine (e.g., *De mendacio* III 3–4) distinguishes 'lie' (*mendacium*) from 'falsity' (*falsitas*). The former is defined as 'false signification with intent to deceive' (*falsa significatio cum uoluntate fallendi*) in *Contra*

(vi) In the beginning of the work, he [Aristotle] told rightly that significative vocal sounds (*voces*) indicate (*monstrare*) the affections of the soul.<sup>42</sup>

In text (iv), he says that the nominative case indicates (*monstrare*) a thing. In text (v), he is going to claim that affirmation and negation are the two species of proposition since both equally ‘indicate’ (*monstrare*) a truth-value. In text (vi), he says that spoken words ‘indicate’ (*monstrare*) the affections of the soul, which (as I will explain shortly) he identifies with thoughts.

Hence, we may be able to claim that ‘*demonstare*’ is a technical expression for ‘reference,’ but we would not be able to replace ‘*significare*,’ ‘*designare*’ and ‘*monstrare*’ simply with ‘sense’ and ‘reference.’

#### 4. The Significatum of Spoken Words

##### 4.1. Spoken Words Signify Thoughts

I have shown that Boethius uses ‘*significare*’ both for the semantic relations of spoken words to things and thoughts in the mind. If we ask Boethius what a ‘*significatum*’ is, we would expect the answer to be a thought (*intellectus*) and also a thing (*res*).<sup>43</sup>

This reply, however, raises a series of questions. How is this answer compatible with his definition of a proposition as a speech signifying a truth-value? How are truth-values related to thoughts and things? If spoken words signify two different objects, it seems that Boethius’ ‘*signifi-*

---

*mendacium* (XII, 26, 507.10–11). Apparently Boethius does not make the distinction, like many classical authors. Marcia Colish (1983: 21) claims that the first Latin author who formulates a distinction between lying and saying something false is Nigidius Figulus. The text mentioned is Gellius, *Noctes atticae* XI, xi, [1], 347.17–21 = Figulus, Fr. 49: “Verba sunt ipsa haec P. Nigidii, hominis in studiis bonarum artium praecellentis, quem M. Cicero ingenii doctrinarumque nomine summe reueritus est: ‘Inter mendacium dicere et mentiri distat. Qui mentitur, ipse non fallitur, alterum fallere conatur; qui mendacium dicit, ipse fallitur.’” Even in this text, ‘*mendacium*’ means ‘falsity.’

<sup>42</sup> In *PH*<sup>2</sup> 500.17–18: “In principio enim libri significativas voces passiones animae monstrare veraciter docuit.”

<sup>43</sup> As we will see in the following chapters, ‘a thing’ (*res*) in Boethius’ works is not confined to material beings such as a stone and a horse but includes immaterial beings such as goodness (see Chapter 3, § 3.1, p. 84). ‘A thing’ (*res*) also stands for a fact or an event, for instance, the fact that a man is an animal or the event that Socrates is sitting (see Chapter 5, § 5, pp. 162 sqq.). Basically, Boethius uses ‘thing’ (*res*) for extramental beings. The expression ‘a thing of the soul’ (*res animae*) is the exception (In *PH*<sup>2</sup> 27.25), and he never calls a thought (*intellectus*) ‘a thing.’

*catum*' is open to the sense-reference distinction, because the thought '*significatum*' is a 'sense' while the thing or truth-value '*significatum*' is a 'referent'.

In considering these questions, we will see the basics of Boethius' semantics. For these considerations, I will first look at how Boethius addresses the question of what spoken words (*voces*) exactly signify.

In the second commentary on *Peri hermeneias*, Boethius says that Porphyry records the controversy among ancient philosophers over the question of what spoken words exactly (*proprie*) signify.<sup>44</sup> Porphyry proposes five possible answers: (i) things (*res*), (ii) incorporeal natures (*naturae incorporeae*), (iii) sensations (*sensationes*), (iv) imaginations (*imaginatioes*) and (v) thoughts (*intellectus*).<sup>45</sup> In contemporary terms, we would call the first position (i) 'a direct reference theory,' according to which names are only for designating things in the world.

Boethius only describes those who support the second opinion (ii), although he and Porphyry may have some philosophers in mind concerning the other opinions as well. They may have associated the first opinion (i) with the Epicureans<sup>46</sup> and must have known that the Peripatetics were supporters of the fifth opinion (v).<sup>47</sup> They seem to have known the Stoics' position that a spoken word signifies a 'sayable' (λεκτόν). Boethius, however, intentionally remains silent about the Stoics

<sup>44</sup> In *PH*<sup>2</sup> 26.21–23. Boethius probably had direct access to Porphyry's lost commentary on *Peri hermeneias*. Proposing that Boethius had manuscripts of Aristotle's works heavily annotated with scholia whose main source was Porphyry, James Shiel claims that Boethius did not directly access Porphyry's commentaries. Considering the frequency of Boethius' reference to Porphyry's arguments, Shiel's thesis is unlikely. For Shiel's thesis, see Shiel 1990 (the first version was published in 1958). For criticisms of Shiel's thesis, see De Vogel 1971: 56–61; Stump 1974; Obertello 1974, 1: 482; Chadwick 1981:129–130; Ebbesen 1987: 375–377 = repr., 289–291; Asztalos 1993: 398–405; Magee 1998: xli–xlii. But it is possible that Boethius has scholia that have Porphyry's commentaries in margins as well as Porphyry's commentaries themselves (De Libera 1999: 164–168).

<sup>45</sup> In *PH*<sup>2</sup> 26.23–27.5. The fifth opinion (v) stated later (In *PH*<sup>2</sup> 29.15–16) is definitely one of the options. I am indebted to Magee (1989: 95) for the following analysis of those opinions.

<sup>46</sup> Plutarch, *Adv. Colotem* 22, 1119E–1120A = FDS 699 A = LS 19K: "τίνας μᾶλλον ὑμῶν πλημμελοῦσι περὶ τὴν διάλεκτον, οἱ τὸ τῶν λεκτῶν γένος οὐσίαν τῷ λόγῳ παρέχον ἄρδην ἀναρεῖτε, τὰς φωνὰς καὶ τὰ τυγχάνοντα μόνον ἀπολιπόντες, τὰ δὲ μεταξὺ σημαίνόμενα πράγματα, δι' ὧν γίνονται μαθήσεις διδασκαλίας προλήψεις νοήσεις ὁρμαὶ συγκαταθέσεις, τὸ παράπαν οὐδ' εἶναι λέγοντες;" See also Sextus Empiricus, *Adv. math.* VIII 13. Whether the Epicureans really held a 'direct-reference theory' is another question. Everson (1994a) claims that they did not.

<sup>47</sup> See note 66 of this chapter.

on this score.<sup>48</sup> Moreover, his description of the second opinion (ii) shows that we cannot classify the Stoics' position into that group.

Boethius says that supporters of the second opinion (ii) are Platonists who argue for the existence of universals separate from matter, postulating 'the Horse Itself' (*hoc ipsum equus*) and 'the Man Itself' (*hoc ipsum homo*).<sup>49</sup> Thus 'incorporeal natures' in this context are Platonic 'incorporeal forms' (*species incorporeae*):<sup>50</sup> forms separate from sensible particulars, i.e., Ideas. Hence, (ii) stands for a realist position on universals.<sup>51</sup> According to the Platonists, spoken words primarily signify incorporeal natures and "can be combined with also other things in signification in such a way that some enunciation or utterance is made up (*conficitur*) of these."<sup>52</sup> Boethius does not say more about the Platonists' view, but I agree with Magee's surmise that he has something similar to Proclus' theory of names in mind.<sup>53</sup> Proclus claims that names are primarily likenesses of Forms (i.e., Ideas) and secondarily likenesses of sensible things.<sup>54</sup> 'Man' primarily signifies an incorporeal form, i.e., the Idea of Man Itself and secondarily or derivatively signifies a corporeal thing, e.g., Socrates in Athens,<sup>55</sup> insofar as the man, Socrates, participates in the

<sup>48</sup> *In PH*<sup>2</sup> 24.20: "Et nunc quidem quid de hac re Stoici dicant praetermittendum est." Ammonius (*In PH* 17.24–28) mentions the Stoics' 'sayable.' If we postulate something like a 'sayable,' as Cameron (2009: 92) says, we have to explain its ontological status and its cognitive genesis.

<sup>49</sup> This position is similar to Plato's position on genera and species, as Boethius describes in his second commentary on *Isagoge*: "Sed Plato genera et species ceteraque non modo intelligi universalia, uerum etiam esse atque praeter corpora subsistere putat" (*In Isag.*<sup>2</sup> 167.12–14).

<sup>50</sup> *In PH*<sup>2</sup> 26.28. Cf. Cicero, *Acad.* I, viii [30]: "Hanc illi ἰδέαν appellant, iam a Platone ita nominatam, nos recte speciem possumus dicere."

<sup>51</sup> Boethius' discussion on universals in his commentaries on *Isagoge*, in which he rejects the realist position, is influential through the Middle Ages. For analyses of Boethius' position on universals, see Tweedale 1976: ch. 2, De Libera 1996a: 128–132 and 1999: ch. 2.

<sup>52</sup> *In PH*<sup>2</sup> 27.2–4: "cum aliis item rebus in significationibus posse coniungi ut ex his aliqua enuntiatio vel oratio conficeretur." Magee (1989: 95) says that this phrase may come from Plato's expression for making speech a 'weaving of forms' (ἀλλήλων τῶν εἰδῶν συμπλοκή) (*Sophist*, 259e).

<sup>53</sup> Magee 1989: 95, n. 9. For Proclus' theory of names, see Hirschle 1979: 18 and Van den Berg 2008. Boethius probably had indirect access to Proclus' works. For Boethius' access to Proclus, see Obertello 1974, 1: 507–521. See also note 35 of Chapter 3.

<sup>54</sup> *In Parm.* 851.6–8: "Τὰ ἄρα ὀνόματα, εἴπερ ἐστὶν ἀγάλματα τῶν πραγμάτων λογικά, τῶν αὐτῶν ἐστὶν εἰδῶν πρῶτως, δευτέρως δὲ τῶν αἰσθητῶν."

<sup>55</sup> *In Parm.* 850.9–11: "ἕκαστον πρῶτως μὲν ἐπὶ τῶν αὐτῶν εἰδῶν κεῖσθαι, δευτέρως δὲ ἐπὶ τῶν αἰσθητῶν."

Idea of Man Itself.<sup>56</sup> Then, it is possible to say that some propositions, for instance, “Man (as a species) is a rational animal,” are ‘made up’ only of incorporeal natures because they signify only Ideas; other propositions, for instance, “Socrates is a man,” are ‘made up’ of incorporeal natures and sensible things because they signify sensible things in addition to Ideas.

On account of different opinions on what they signify, Boethius says, Aristotle starts his consideration of *Peri hermeneias* with the statement that spoken words are ‘symbols’ (σύμβολα) of the affections of the soul (16a3). By this statement, he says, Aristotle intends to establish his position concerning the signification of spoken words.<sup>57</sup> The statement proposes that spoken words exactly signify some states of the mind, not (i) things or (ii) incorporeal natures.

There are three possibilities of the state of the mind in question, i.e., ‘the affections of the soul’: (iii) sensory contents (*sensus*), (iv) imaginations (*imaginatio*) and (v) thoughts (*intellectus*).<sup>58</sup> Rejecting (iii) and (iv), Boethius upholds (v).

In rejecting the alternatives, he first claims that (iii) sensory contents and (v) thoughts differ by nature, on the basis of a sentence from Aristotle’s lost work *De iustitia*.<sup>59</sup> Moreover, he says that Aristotle would have said ‘affections of the body’ (*passiones corporis*) instead of ‘affections of the soul’ (*passiones animae*) if he had sensory contents in mind.<sup>60</sup> The ‘affections of the soul’ should be, then, either (iv) imaginations or (v) thoughts.

He claims that (iv) imaginations and (v) thoughts differ on the basis of a passage quoted from Aristotle’s *De anima* where Aristotle suggests that a combination of simple thoughts is truth or falsity while a combination of imaginations is not.<sup>61</sup> Moreover, he says that the imagination is something confused and that the intellect explicates (*explicat*) the

<sup>56</sup> *In Parm.* 852.30–32: “Ἀλλ’ ὅτι μὲν τὰ ὀνόματα πρῶτως ἐπὶ τῶν νοητῶν ἔστιν εἰδῶν καὶ ἐκείθεν ἦκει μετὰ τῆς οὐσίας τοῖς αἰσθητοῖς, ἐκ τούτων δῆλον.”

<sup>57</sup> *In PH<sup>2</sup>* 27.6–10. Boethius (*In PH<sup>2</sup>* 26.17 sqq.) suggests this is originally Porphyry’s interpretation.

<sup>58</sup> By ‘*sensus*’, ‘*imaginatio*’, and ‘*intellectus*’, Boethius means the sense, the imagination, and the intellect as a power, its act and its content. Magee (1989) provides textual evidence for this: 98–99 (for *sensus*); 100 (for *imaginatio*); 114 (for *intellectus*). In my translation of Boethius’ texts, I assign more than a single expression each for ‘*sensus*’ and ‘*intellectus*’, considering the context of each discussion.

<sup>59</sup> *In PH<sup>2</sup>* 27.14–17. This text is collected as Aristotle’s Fr. 87 [76].

<sup>60</sup> *In PH<sup>2</sup>* 27.18–22.

<sup>61</sup> *In PH<sup>2</sup>* 28.1–13. The reference is Aristotle, *DA* III, ch. 8, 432 a10–14 (Boethius’ quotation is slightly different from the Greek text edited by David Ross).

confused parts of the imagination.<sup>62</sup> He compares the imagination to sketching in black and white and the intellect to painting in color.<sup>63</sup> In other words, the imagination is something imperfect, but nouns and verbs signify something perfect.<sup>64</sup> Given that the imagination is not perfect, the remaining alternative of the significate is (v) thoughts.<sup>65</sup> Hence, Boethius claims that thoughts are ‘the affections of the soul’ that are signified by spoken words, nouns and verbs.<sup>66</sup>

Hence, this is Aristotle’s correct opinion: Whatever are reflected upon (*versantur*) in verbs and nouns signify neither sensations (*sensus*) nor imaginations (*imaginationes*) but signify *only* (*sola*) the quality of thoughts.<sup>67</sup>

He here says ‘the quality of thoughts’ (*qualitas intellectuum*) not simply ‘thoughts’ (*intellectus*). Frequently he does say that spoken words signify thoughts but in a couple of instances he says that spoken words signify the *quality* of thoughts.<sup>68</sup> By ‘the quality of thoughts,’ he seems to mean ‘specific differences’ of thoughts, which differentiate, for instance, a thought

<sup>62</sup> In *PH*<sup>2</sup> 29.7–10.

<sup>63</sup> In *PH*<sup>2</sup> 29.3–5. Ammonius (In *PH* 20.3–6) furnishes a graphic explanation of ‘likeness,’ i.e., a thought. Some other Greek commentators also compare the imagination (*φαντασία*) to painting. For Greek commentators’ views of *φαντασία*, see Sheppard 1991.

<sup>64</sup> In *PH*<sup>2</sup> 29.11–13.

<sup>65</sup> One may wonder whether Boethius rejects (ii) incorporeal natures in the end. De Rijk (1981 and 1988: 16–17) argues that Boethius in fact thinks that Ideas in God are ultimately what are signified by words. Magee (1989: 96) endorses this possibility, saying that De Rijk’s argument is persuasive. I think that it is unlikely that Boethius holds this position in the commentaries insofar as those commentaries are written to explain Aristotle’s thoughts (see In *Isag.*<sup>2</sup> 167.12–20 for his attitude about commenting on Aristotelian works). In the commentary on *Categories*, moreover, Boethius seems to endorse the position that every spoken word ultimately signifies the first substance, not the secondary substance: “Praedicantur autem secundae substantiae de primis, ergo ut secundae substantiae sint, praedicatio de primis substantiis causa est. Non enim essent secundae substantiae, nisi de primis substantiis praedicarentur” (185d–186a).

<sup>66</sup> This interpretation of Aristotle that identifies ‘the affections of the soul’ with thoughts is widely accepted among commentators from ancient to modern (Ammonius, In *PH* 6.14–23; Whitaker 1996: 13–17; Charles 2000: 81 and Weidemann 2002: 135–137). Already, it seems, Andronicus of Rhodes took this interpretation (Alexander, In *PrA* 160.32; Ammonius, In *PH* 5.28–6.14; Boethius, In *PH*<sup>2</sup> 11.24–30). But some claim that the ‘affections’ are imaginations (e.g., Kretzmann 1974, 9; Chiesa 1986: 212; Modrak 2001: 221–223).

<sup>67</sup> In *PH*<sup>2</sup> 29.13–16: “Quare recta Aristotelis sententia est: quaecumque in verbis nominibusque versantur, ea neque sensus neque imaginationes, sed solam significare intellectuum qualitatem.”

<sup>68</sup> In *PH*<sup>2</sup> 29.13–16 (see the previous note); In *Cic. Top.* 384.5–6 = 1164c: “Quocirca nomen quoque intellectus qualitatem designat.” Cf. In *PH*<sup>2</sup> 136.4–6: “Atque ideo cum aliquid vel adfirmare cupimus vel negare, hoc intellectus et conceptionis animi qualitatem refertur”; In *PH*<sup>2</sup> 49.27–32 (see note 90 of this chapter).

of a horse from a thought of an animal, or a thought that something is true from a thought that something is false. He claims that nouns and verbs signify *only* thoughts or specific differences of thoughts,<sup>69</sup> and he rephrases this claim as “Besides a thought, a spoken word signifies (*designat*) absolutely nothing.”<sup>70</sup> If spoken words signify *only thoughts*, they would signify nothing except thoughts. They would neither signify imaginations nor things themselves. It is in this same line of interpretation that he says, “Aristotle does not believe that the subject things are signified by nouns and verbs.”<sup>71</sup>

#### 4.2. Spoken Words Signify Thoughts and Things

But these decisive statements that spoken words exclusively signify thoughts generate a problem: how are they compatible with his fundamental semantic thesis that spoken words can signify things (*res*) by the mediation of thoughts?<sup>72</sup>

Vocal sounds (*voces*) are capable of signifying (*designare*), through the mediation of senses and thoughts, the things that are subject to those thoughts.<sup>73</sup>

He says, moreover, that spoken words signify *principally* thoughts and *secondarily* things by the mediation of thoughts:<sup>74</sup>

These [i.e., spoken words] indeed principally signify (*designant*) thoughts (*intellectus*) while they also signify things in the second place (*secundus locus*).<sup>75</sup>

<sup>69</sup> Aristotle (*Met.* V, ch. 14, 1020b14–17) says that ‘quality’ (ποιότης) has the meaning of ‘an essential difference’ (διαφορὰ τῆς οὐσίας). By ‘qualities of a proposition,’ Alexander of Aphrodisias means specific differences among propositions, i.e., affirmative and negative (*In PrA* 11.31–32), and Boethius follows him (*Introd. cat. syll.* 25.5–17 = 769a–b; for this text, see Chapter 6, nn. 26 and 28).

<sup>70</sup> *In PH*<sup>2</sup> 21.4–5: “Praeter intellectum namque vox penitus nihil designat.”

<sup>71</sup> *In PH*<sup>2</sup> 27.10–11: “Aristoteles enim nominibus et verbis res subiectas significari non putat.”

<sup>72</sup> E.g., *In PH*<sup>2</sup> 7.12–17; 7.25–27; 8.1–7 (cited in note 34 of this chapter). Greek commentators also claim that spoken words signify things by the mediation of thoughts: Ammonius, *In PH* 17.24–26; *In PrA* 1.8–9; Simplicius, *In Cat.* 42.5–6; Philoponus, *In Cat.* 9.14–15. Philoponus mentions Iamblichus as a supporter of this position. Note that all these commentators are followers of Porphyry (see Chart 4 on p. xxiii). This suggests that Porphyry probably holds the same thesis. For tracing this thesis back to Porphyry, see Ebbesen 1990a, Lloyd 1990: 49 and Martin 2009: 176–179.

<sup>73</sup> *In PH*<sup>2</sup> 8.6–7 (the last sentence of the quotation in note 34 of this chapter).

<sup>74</sup> Dexippus (*In Cat.* 10.18–19) also claims that spoken words principally (πρώτως) signify thoughts and secondarily (δευτέρως) signify things.

<sup>75</sup> *In PH*<sup>2</sup> 24.12–13: “Haec [sc., voces] vero principaliter quidem intellectus, secundo vero loco res quoque designant.” There is a parallel statement in *In PH*<sup>1</sup> 40.15–19.

Those items that are in a vocal sound [i.e., nouns and verbs] signify things and thoughts, principally the thoughts, and, in the secondary signification, the things, which an act of understanding (*intellegentia*) itself comprehends by the mediation of the thoughts.<sup>76</sup>

I call Boethius' claim that spoken words signify things by the mediation of thoughts 'Boethius first semantic thesis' (BoST<sub>1</sub>). The above texts, which support this thesis, may appear to claim that spoken words signify things ('reference') in addition to thoughts ('sense'), and therefore, that there is a reference distinct from a sense; and it is only through the mediation of thoughts ('sense') that spoken words signify things ('reference').<sup>77</sup> Indeed, John Magee presents Boethius in this way, saying "Thus signification proceeds in two stages: first sense, then reference."<sup>78</sup> This account fits with Boethius' statement in the first commentary: "Not all things which a spoken word (*vox*) signifies are the affections of the soul [i.e., thoughts], but only those which are first [signified]."<sup>79</sup>

This way of interpreting Boethius' theory of signification is explained with a figure called 'a semantic triangle',<sup>80</sup> 'a triangle of signification'<sup>81</sup> or 'a semiotic triangle'.<sup>82</sup> The device is often used for explaining Aristotle's theory of language.<sup>83</sup> Each side of the triangle signifies a relation and each vertex signifies a *relatum* in the relation. A semantic triangle has 'spoken words,' 'thoughts,' and 'things' in its three vertices. The basic idea represented by a semantic triangle is that spoken words are not related

<sup>76</sup> In *PH*<sup>2</sup> 33.27–31: "Nam cum ea quae sunt in voce res intellectusque significant, principaliter quidem intellectus, res vero quae ipsa intellegentia comprehendit secundaria significatione per intellectum medietatem."

<sup>77</sup> This sounds similar to Frege's principle that sense determines reference: "Logic must demand not only of proper names but of concept words as well that the step from the word to the sense and from the sense to the reference be determinate beyond any doubt" ("Comments on Sinn and Bedeutung," in Beaney 180 [135–136]): "Thus it is via a sense, and only via a sense, that a proper name is related to an object" ("Comments on Sinn and Bedeutung," in Beaney 180 [135]).

<sup>78</sup> Magee 1989: 117.

<sup>79</sup> In *PH*<sup>1</sup> 40.19–21: "Ergo non omnia quae vox significat passiones animae sunt, sed illa sola quae prima."

<sup>80</sup> Ebbesen 1984: 383; O'Callaghan 2003: ch. 1.

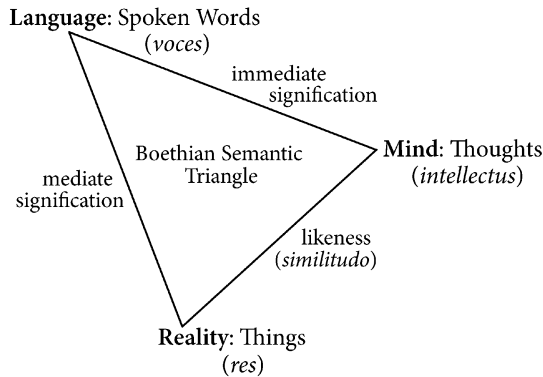
<sup>81</sup> Ebbesen 1990a: 171.

<sup>82</sup> Manetti 1993: 71–72.

<sup>83</sup> E.g., Lieb 1981: 148 (fig. 27), Weidemann 2002: 149. But Ebbesen (1984: 383) says, "The credit (or blame) for explicitly introducing the 'semantic triangle' belongs to the Stoics of the third-second centuries B.C.". Note that the Stoics' semantic triangle is different from Boethian semantic triangle; the major difference being that the Stoics use 'sayables' in place of 'thoughts' (see *Adv. math* VIII 11–12 = in note 22 of this chapter; Manetti 1993: 94 for the Stoics' semantic triangle).



to things without a third element, which has some relationship to the spoken words as well as to the things designated by them. We can draw different types of semantic triangle according to different theories of signification. A 'Boethian semantic triangle' is drawn below.



Such a treatment of Boethius' semantics, however, certainly weakens the claim in the second commentary that spoken words signify *only* thoughts.<sup>84</sup> This claim endorses what we may call in contrast 'the one-stage view.' I believe that this claim should be taken seriously. The apparent contradiction will vanish if we take a particular interpretation of the term 'mediation' (*medietas*), which Boethius himself does not further articulate in his explanation.<sup>85</sup>

Compare the following two cases of 'mediation.' (i) When a man sees a star far from the earth through the lens of a telescope, we say that he sees the star by the mediation of the lens and that he sees the lens and the star. (ii) When a woman sees a man approaching her in a mirror into which she is looking, we say that she sees the person by the mediation of the mirror and that she sees the mirror and the person. In both cases, both a mediating object (a lens/a mirror) and a thing different from the mediating object (a star/a man) are seen, but only in the latter case is it legitimate to say that only the mediating object, a mirror, is seen by the viewer.

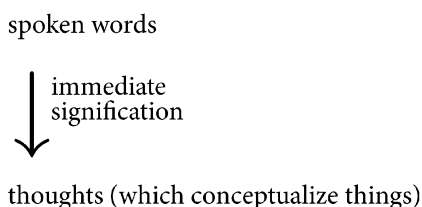
Now let us return to our case. Thoughts can mediate between spoken words and things because spoken words signify thoughts and thoughts

<sup>84</sup> There is no parallel statement in Ammonius' commentary on *Peri hermeneias*.

<sup>85</sup> Cf. Gaskin 2001a: 228: "The appearance of contradiction arises, I suggest, because Boethius is not entirely clear about what mediation involves."

are somehow related to things. Following Aristotle's statements (16a3–8), Boethius says that the 'affections of the soul,' which he identifies with 'thoughts,' are likenesses (*similitudines*) of things.<sup>86</sup> The similitude-relation between thoughts and things allows an interpretation of the 'mediation' of thoughts in a way similar to that of a mirror.<sup>87</sup> Things reflected in a mirror, insofar as being in the mirror, are not things themselves but likenesses of things. We find things such as our faces *etc.* in the mirror without looking at them immediately. Similarly, things conceived in our thoughts are not things themselves but likenesses of things. Furthermore, we signify things conceptualized in thoughts without signifying those things immediately. When Boethius says that spoken words signify things by the mediation of thoughts, we should not understand by the expression 'mediation' (*medietas*) that something else *besides* the thoughts is also signified (metaphorically speaking, the mirror), but that the very contents *inside* the thoughts are signified when the spoken words signify the thoughts.

If the above interpretation is right, Boethius' semantics can be represented simply by a line (as drawn below) rather than by a triangle. The 'Boethian semantic triangle' represents the Aristotelian-Boethian semantic tradition, and it is in fact a useful device for explaining Boethius' theory of signification.<sup>88</sup> The triangle, however, is misleading if it is taken as the whole picture of Boethius' semantics, as it is more accurately represented in a linear fashion. It is possible that he moved toward this alternative because he noticed the danger in the two-stage or triangular view of signification—a thought may be taken as a veil between spoken words and extramental things.



<sup>86</sup> *In PH*<sup>1</sup> 37.18–21; *In PH*<sup>1</sup> 39.16–18; *In PH*<sup>2</sup> 35.15–21.

<sup>87</sup> Boethius himself compares the mind to a mirror (*speculum*) in an epistemological context (*CP* V, m iv, 151.14). Examples of mirror being used in psychological contexts before Boethius: St. Paul, *To Corinthians* I, 13:12; Plotinus, *Enneades* IV 3, 30.10; Ammonius, *In PH* 21.30–31.

<sup>88</sup> For its further application, see Chapter 3, § 4.4, pp. 106–107.

#### 4.3. *A Proposition Signifies Truth and Falsity*

The signification of a single word, a noun or a verb alone, is explained as above, but in the case of propositions, Boethius says that spoken words signify truth-values as well as thoughts and things. Where do these truth-values exist?

Boethius says that a truth-value exists first in a composition and a division of thoughts and then in a composition and a division of spoken words because they are first made in thoughts and then are expressed in vocal sounds. That is to say, thoughts are primary bearers of truth-values and spoken words are secondary bearers of them.<sup>89</sup>

But when there is a composition or division involving ‘to be’ (*secundum esse*) that is made in thoughts, in which truth and falsity are primarily engendered, given that vocal sounds (*voces*) receive signification from thoughts, it is necessary that vocal sounds too are true or false according to the quality of the thoughts.<sup>90</sup>

If Socrates is actually walking when we combine a thought of Socrates with a thought of walking, truth is established in the thoughts thus combined. But if Socrates is not actually walking, falsity is established in the combined thoughts. Likewise, if Socrates is actually walking when we separate a thought of Socrates from a thought of walking, falsity is established in the thoughts thus divided. But if Socrates is not actually walking, truth is established in the divided thoughts.<sup>91</sup> When a spoken proposition signifies combined or divided thoughts, it not only signifies things as the very content of the thoughts, but also truth-values established *in* the combined or divided thoughts. Thus, a truth-value is not something existing *outside* thoughts but rather something existing *in* thoughts as a quality of them.<sup>92</sup> When spoken words signify thoughts, therefore, they also signify things in the content of the

---

<sup>89</sup> Greek commentators share the same idea: Dexippus, *In Cat.* 10.3–5; Ammonius, *In PH* 18.6.

<sup>90</sup> *In PH*<sup>2</sup> 49.27–32: “Sed cum compositio secundum esse facta vel etiam divisio in intellectibus, in quibus principaliter veritas et falsitas procreatur, evenerit, quoniam ex intellectibus voces capiunt significationem, eas quoque secundum intellectuum qualitatem veras falsas esse necesse est.”

<sup>91</sup> Cf. *In PH*<sup>2</sup> 14.22–23 (part of this text of is cited in Chapter 4, note 45, p. 125).

<sup>92</sup> Cf. This is opposite to what Frege maintains about truth-value. For Frege, truth-values exist independently from thinkers: “Thus for example the thought we have expressed in the Pythagorean theorem is timelessly true, true independently of whether anyone takes it to be true” (Frege, “Thought,” in Beaney 337 [69]).

thoughts. Whenever they form a proposition, they also signify a truth-value, which is a property of the thoughts.

We should note that the words ‘true’ and ‘truth’ are equivocal in Boethius’ works. I call the truth discussed above, i.e., the truth expressed in a proposition, ‘semantic truth.’ There are different types of truth discussed by Boethius, and they should be differentiated from the truth in the present discussion.

Some truth is found in cognition, especially in imagination and in opinions. It concerns whether we grasp things outside our minds correctly. Hence, I call this truth ‘epistemic truth.’ Boethius explains it thus:

For there is truth in opinions when an imagination (*imaginatio*) is captured from a subject thing or when the intellect receives an imagination [of the thing] precisely as it is; there is falsity when [the imagination] is not captured from the subject or when it is not subject to thought in correspondence with the thing. But so far as concerns truth or falsity only a certain relationship between the opinion and the subject thing is found. For this alone, i.e., the relationship of how the imagination is to a subject thing, is discerned in [this type of] truth or falsity. Now nobody would call this relationship ‘a composition.’ And no mode of a division can be understood in this, not even the fictive type.<sup>93</sup>

Imagination and opinions, which are formed simply by receiving an image in the intellect,<sup>94</sup> are ‘true’ insofar as they represent external things as they are, and ‘false’ insofar as they misrepresent them. One’s memory of a childhood home is true insofar as one recalls it correctly. The content of opinions—for instance, the belief that Socrates walks—is ‘propositional’ in the sense that it potentially contains both a subject and

<sup>93</sup> In *PH*<sup>2</sup> 45.32–46.12: “In opinionibus namque veritas est, quotiens ex subiecta re capitur imaginatio vel etiam quotiens ita, ut sese res habet, imaginationem accipit intellectus; falsitas vero est quotiens aut non ex subiecto aut non ut sese habet res imaginatio subicitur intellectui. Sed adhuc in veritate atque falsitate nihil equidem aliud reperitur nisi quaedam opinionis habitudo ad subiectam rem. Qua enim habitudine et quomodo sese habeat imaginatio ad rem subiectam, hoc solum in hac veritate vel falsitate perspicitur. Quam quidem habitudinem nullus dixerit compositionem. In hoc vero divisionis nullus ne fictus quidem modus intellegi potest.”

<sup>94</sup> Boethius renders the Greek ‘δόξα’ as ‘*opinio*’ (e.g., *PH*, 23a33, 38, b3, 21, 22), and it seems that his notion of ‘*opinio*’ in his commentaries reflects what Aristotle says about ‘δόξα’ and ‘δοξάζειν’ in *De anima*. Aristotle says that ‘δόξα’ is relevant to truth and falsity: “δοξάζειν δ’ οὐκ ἐφ’ ἡμῖν· ἀνάγκη γὰρ ἢ ψεύδεσθαι ἢ ἀληθεύειν. ἔτι δὲ ὅταν μὲν δοξάσωμεν δεινόν τι ἢ φοβερόν, εὐθὺς συμπάσχομεν, ὁμοίως δὲ καὶ θανατάλειον” (*DA* III, ch. 3, 427b20–23). He also says it belongs only to human beings, i.e., rational animals (*DA* III, ch. 11, 434a10–11).

a predicate,<sup>95</sup> but unlike spoken sentences it lacks any actual composition and division in itself, and thus is only true if it correctly represents reality.<sup>96</sup> We call an image and an opinion ‘true’ or ‘false,’ but truth and falsity of this type are not established in imagination and thoughts. Epistemological truth and falsity are found in the relationship between images or thoughts and objects outside the mind that they represent.

Some truth is found in things. It is concerned with whether something or some property really exists. I call it ‘ontic truth.’ Boethius says that we call the pleasure of living well ‘true’ and the pleasure of making war ‘false’ according to the essence of these things.<sup>97</sup> He also says that we call God, the greatest of everything, ‘Truth itself,’ because nothing could occur accidentally in Him and nothing in Him ever happens to be absent from him.<sup>98</sup>

Epistemic truth and ontic truth are different from semantic truth. Semantic truth, that is, the truth and falsity signified by a proposition, is in the composition or division that occurs only in plural thoughts, and in spoken or written expressions.<sup>99</sup> A correspondence between something that is called ‘true’ and a thing in reality is a sufficient condition for epistemic truth but not for semantic truth.

## 5. *Empty Names and Truth-Value Gaps*

### 5.1. *Are there Empty Names?*

According to the above explanation (§ 4.2), to signify a thought (‘sense’) is the same act as to signify a thing (‘reference’) in Boethius’ theory of signification. This is a crucial implication of ‘Boethius’ first semantic thesis’ (BoST<sub>1</sub>), and I call this ‘Boethius’ first semantic principle’ (BoSP<sub>1</sub>). Hence ‘signification’ cannot be explained simply by replacing it with the popular terms ‘sense’ and ‘reference,’ which are used in the contemporary philosophy of language.<sup>100</sup>

---

<sup>95</sup> I learned about the ambiguity of the term ‘propositional’ from Emilsson’s comment on the debate over whether non-discursive thoughts in Plotinus are ‘non-propositional’ (2007: 185–191).

<sup>96</sup> Presumably this is what he means by “my having conceived that he walks, itself is not a composition” in *PH*<sup>2</sup> 46.27–47.5 (you can see this text in Chapter 3, note 63, p. 93).

<sup>97</sup> In *PH*<sup>2</sup> 46.12–15. Ammonius (In *PH* 21.21–33) explains how things and pleasures are called ‘true’ or ‘false.’

<sup>98</sup> In *PH*<sup>2</sup> 46.15–22.

<sup>99</sup> In *PH*<sup>2</sup> 46.24–27.

<sup>100</sup> Cf. Ashworth 1981: 309: “I want to start by claiming that the Latin terms *significare*

As for the names of non-existents, however, Boethius seems to admit that to signify a thought ('sense') is not to signify a thing ('reference'), and that a thought ('sense') can exist without a thing ('referent').

Nor for a thought is there always a subject thing. For there are thoughts without any subject thing, for instance, centaurs or chimeras, which poets have invented. The thoughts of these [fictional beings] are the ones for which there is no subject substance.<sup>101</sup>

Boethius says that we can have thoughts of such fictional animals as 'centaurs' or 'chimeras,' but, as we know, these animals do not exist objectively in the world.<sup>102</sup> In the contemporary philosophy of language, names for these fictional entities are called 'empty names' because they lack the referents or the objective beings of which they are names. Philosophers often find in empty names good reason for endorsing the sense-reference distinction and the Fregean principle that a sense can exist without a reference.<sup>103</sup> I will examine the signification of names of this sort to see whether they furnish exceptions to Boethius' general account of signification: (i) to signify a thought is to signify a thing (§ 4.2) and (ii) to signify a thought is to signify a truth-value if words makes up a proposition (§ 4.3).

An empty name, a name of a non-existent, is either a 'simple noun' (*nomen simplex*) or a 'composite noun' (*nomen compositum*).<sup>104</sup> 'Chimera,' 'centaur,' and 'Scylla' are examples of the former while 'goat-stag' (*hircocervus*) is an example of the latter.<sup>105</sup> Boethius explains how these two types of noun differ in signification:

---

and *significatio* as used by medieval and post-medieval logicians have no precise translation into contemporary philosophical English, nor does there seem to have been any consistent definition of them during the medieval period."

<sup>101</sup> In *PH*<sup>2</sup> 22.2–6: "Nec intellectui quoque subiecta res semper est. Sunt enim intellectus sine re ulla subiecta, ut quos centauros vel chimaeras poetae finxerunt. Horum enim sunt intellectus quibus subiecta nulla substantia est."

<sup>102</sup> For the history of ideas on these fictional entities, see Ebbesen 1986.

<sup>103</sup> Carl (1994: 80) regards this as one of the two fundamental principles of Frege's philosophy. In Frege's expression, "It may perhaps be granted that every grammatically well-formed expression figuring as a proper name always has a sense. But this is not to say that to the sense there also corresponds a reference" ("On Sinn and Bedeutung," in Beaney, 153 [28]).

<sup>104</sup> These two types of noun are traced back to chapter 2 of Aristotle's *Peri hermeneias* (16a21–24). He claims that some nouns are composite (πεπλεγμένα) while others are simple (ἀπλά). As an example of a composite noun, he mentions 'pirate-boat' (ἐπακτρο-κέλης) of which 'boat' (κέλης) can obtain a meaning as an independent word.

<sup>105</sup> Boethius says that 'goat-stag' is a composite noun (In *PH*<sup>1</sup> 44.2; In *PH*<sup>2</sup> 50.3).

A simple noun does not even give the appearance (*imaginatio*) that its parts signify while a composite noun has parts, which, as it were, purport to signify something but co-signify rather than signify something by themselves.<sup>106</sup>

A part of a composite noun appears to signify something. Of the composite noun '*suburbanum*' (a suburban-villa), he says that '*urbanum*' (of city) appears to signify, presumably a city.<sup>107</sup> It is true that the word '*urbanum*' forms a thought of its own by itself, but it does not as a part of the composite noun '*suburbanum*.' Since spoken words signify thoughts, '*urbanum*' in '*suburbanum*' signifies nothing by itself. When '*urbanum*' is combined with the remaining part of the word, i.e., the prefix '*sub*,' the word as a whole signifies *one* thought of a villa on the outskirts of a town, not two thoughts, namely a thought of a villa and a thought of the outskirts of a town.<sup>108</sup> The same holds for the composite noun 'goat-stag.' 'Goat-stag' (*hircocervus*) signifies one thought of an animal that is a goat (*hircus*) and a stag (*cervus*) at the same time, not two different thoughts, i.e., a thought of a goat *and* a thought of a stag. Presumably a similar account of signification holds for simple nouns of non-existents, for instance, 'centaur' insofar as the thought of 'centaur' is the same as the thought of 'horseman,' a composite noun.

### 5.2. *Is there a Truth-Value Gap?*

We have seen that the signification of empty names is different from that of 'non-empty names' as the former lack signification with regard to things. In Fregean semantics, an empty name makes 'a truth-value gap,' a sentence that is neither true nor false but says that something is the case. Fregean semantics is based upon the compositional principle that the meaning of the whole sentence consists of those of its parts. As I said (§ 5.1), it also sustains the principle that a sense can exist without a reference, and this principle holds for sentences as well as for proper names. When a part of a sentence does not have a referent, the whole sentence lacks a referent, i.e., a truth-value, although it

<sup>106</sup> In *PH*<sup>2</sup> 58.22–26: "Simplex enim nomen nec imaginationem aliquam partium significationis habet, compositum vero tales habet partes, ut quasi conentur quidem aliquid significare, sed consignificant potius quam quidquam extra significant." There is a parallel explanation in *In PH*<sup>1</sup> 49.9–17.

<sup>107</sup> In *PH*<sup>2</sup> 58.1–2.

<sup>108</sup> In *PH*<sup>2</sup> 57.32–58.1. Instead of 'composite noun,' he says 'non-simple noun' (*non simplex nomen*).

has a sense, i.e., a thought (*Gedanke*). For instance, “Odysseus was set ashore at Ithaca while sound asleep” has a thought but no truth-value, because a part of the sentence, i.e., the proper name ‘Odysseus,’ lacks a referent.<sup>109</sup> The sentence is neither true nor false. This means that a fundamental principle of classical logic, the principle of bivalence which states that P is either true or false (P = a proposition), does not always hold.

On the other hand, Boethius says that a sentence that has an empty name still possesses a truth-value:

On the other hand, we say that a chimera non-runs (*non-currit*). A chimera neither exists (*non est*) nor subsists (*subsistit*) and it can be said *truly* of it that it non-runs (*non-currit*). For, it does not exist at all and does not run (*non currit*).<sup>110</sup>

He says that “a chimera non-runs” is true. ‘Non-runs’ (*non-currit*) is an example of an indefinite verb, i.e., a verb with a negative particle.<sup>111</sup> As for “a chimera runs,” a *lacuna* in all existent manuscripts of the second commentary unfortunately prevents us from saying something certain.<sup>112</sup> But as Sten Ebbesen says, it seems that “he [Boethius] wants to say that in ‘a/the centaur runs’ running is predicated, but falsely.”<sup>113</sup> Following Aristotle (16a16–18), Boethius says that uttering ‘goat-stag’ alone does not establish a truth-value unless it is combined with the verbs ‘to be’ or ‘not to be.’<sup>114</sup> This statement suggests that once a name is combined with a verb and forms a sentence, the sentence signifies either truth or falsity. Thus “the goat-stag is” and “the centaur runs” are

<sup>109</sup> Frege, “On Sinn and Bedeutung,” in Beaney 157 [32].

<sup>110</sup> *In PH*<sup>1</sup> 60.11–14 (notation altered from Meiser; for my alteration, see the next note): “Rursus dicimus chimaera non-currit. Chimaera vero non est nec omnino subsistit et potest de ea vere dici, quoniam non-currit. Quod enim omnino non est, et non currit.” The final words ‘does not run’ (*non currit*) can also be taken as ‘non-runs’ (*non-currit*). I guess that Boethius here renders ‘ὑφίστασθαι’ as ‘subsistere.’ Cf. Porphyry, *In Cat.* 121.8–9: “ἅμα γὰρ τῷ ἀναπλάσαι χίμαιραν ὑπέστη ἅμα καὶ ἡ ἐπιστήμη τῆς χιμαίρας καὶ τὸ φάντασμα αὐτῆς.” But whether Boethius saw a significant difference between ‘exist’ and ‘subsist’ is another question. He probably did not. We will see more about Boethius’ use of ‘subsistere,’ in nn. 67 and 68 of Chapter 6.

<sup>111</sup> Meiser writes ‘*non currit*.’ Since this sort of notation blurs the difference between an indefinite verb and a negation of a verb, I have opted for ‘*non-currit*.’ For a further discussion of indefinite verbs, see Chapter 4, § 3.3.

<sup>112</sup> There is a *lacuna* in the second commentary in *In PH*<sup>2</sup> 70.15–18.

<sup>113</sup> Ebbesen 1986: 120.

<sup>114</sup> *In PH*<sup>1</sup> 45.23–27; *In PH*<sup>2</sup> 50.9–11.



false.<sup>115</sup> Hence, he would reject a truth-value gap in sentences that have empty names. Empty names are exceptions to his fundamental semantic principle (BoSP<sub>1</sub>),<sup>116</sup> but are no exception to the principle of bivalence.<sup>117</sup>

### 6. *The Paradigm of Boethius' Semantics*

In this chapter, I made terminological and philosophical surveys of 'signification,' in Boethius' works. The results of these surveys show that Boethius' semantics largely differs from Fregean semantics of sense-reference distinction.

'To signify' (*significare*) in Boethius' works is not a technical expression for 'sense' distinct from 'reference.' Boethius claims that words signify principally thoughts and secondarily things by the mediation of thoughts (BoST<sub>1</sub>). He also claims that words signify a truth-value when these words make up a proposition. We should *not* take these claims to say that words signify things and truth-values in addition to thoughts, or that we attain 'referents' of words by the mediation of their 'senses.' A couple of times, he does say that spoken words signify *only* thoughts. With the exception of empty names, his first semantic principle (BoSP<sub>1</sub>) holds: to signify a thought ('sense') is the same act as to signify a thing ('reference'). In propositions, to signify thoughts is to signify truth-values produced in the thoughts.

Frege originally made the sense-reference distinction for explaining the meaning of proper names such as 'Morning Star' and 'Evening Star.' In explaining 'meaning,' contemporary philosophers often make distinctions among the cases of proper names (e.g., 'Socrates,' 'Plato') and concept-words, and sometimes divide concept-words further into natural-kind terms (e.g., 'water,' 'horse') and non-natural kind terms (e.g., 'chair,' 'desk'). Boethius' examples indicate that the paradigmatic cases

<sup>115</sup> Not all the medievals think like Boethius. Some medieval thinkers held that "Man is an animal" would be true even if no man existed. For the medieval discussions on propositions that contain empty names, see De Libera 2002.

<sup>116</sup> I will explain more about the vacillating status of empty names in Boethius' semantics in Chapter 3, § 4.3. Cf. Ebbesen 1991: 151 (cited in Chapter 3, note 114, pp. 104–105).

<sup>117</sup> A thorough consideration of the principle of bivalence and the law of the excluded middle in Boethius' logic demands an analysis of sentences dealing with future contingents (famously known as 'the sea-battle argument' in Aristotle, *PH*, ch. 9). This problem requires special treatment. Boethius claims that such sentences are either true or false 'indeterminately' or 'changeably' (e.g., *In PH*<sup>2</sup> 208.7–18). Kretzmann (1987) and Marenbon (2003: 37–41) discuss what Boethius means by 'indeterminate truth/falsity.'

of his explanation are ‘natural-kind terms’ such as ‘water’ and ‘stone.’<sup>118</sup> He would call concept-words ‘common names/nouns’ (*nomina appellativa*),<sup>119</sup> and he suggests that common names signify qualities common to human beings while proper names signify qualities peculiar to each individual.<sup>120</sup> ‘Man’ (*homo*) signifies humanity (*humanitas*) while ‘Plato’ (*Plato*) signifies ‘Platonity’ (*Platonitas*),<sup>121</sup> i.e., the property of Plato that is incommunicable to other human beings.<sup>122</sup> In general, however, he pays little attention to differences of signification among these different types of noun. He seems to believe that his account of signification, which I have summarized in this chapter, equally holds for verbs and the different types of noun.

What is presented in this chapter are the basics of Boethius’ explanation of language: spoken words principally signify thoughts. Boethius, however, does not say that spoken words are ‘signs’ (*signa*) of thoughts but says that they are ‘notae’ of thoughts. He translates Aristotle’s two expressions, ‘symbols of affections of the soul’ and ‘signs of affections of the soul,’ as ‘*notae passionum animae*.’ Does this word choice reflect something peculiar to Boethius’ theory of signification that does not exist in Aristotle’s, possibly relevant to his psychological explanation of language? The expression ‘*nota*’ has an immediate association with a mental act as in the expression ‘*nota bene*.’ In the next chapter, I will investigate Boethius’ theory of signification starting from this question.

---

<sup>118</sup> For instance, see *In PH*<sup>1</sup> 139.17–18 and *In Cat.* 159a–b.

<sup>119</sup> *In PH*<sup>2</sup> 61.32. See Chapter 4, § 1, p. 118.

<sup>120</sup> *In PH*<sup>2</sup> 136.17–140.20. Esp. *In PH*<sup>2</sup> 139.27–29: “cum dico Plato quem hominem dixerim vocabulo designavi proprietatemque uniuscuiusque quem nomino.”

<sup>121</sup> *In PH*<sup>2</sup> 139.19.

<sup>122</sup> The problem of signification of proper names in Boethius’ semantics requires further research. For further investigation of the problem, see Magee 1989: 122–125; Cameron 2009: 93.

## CHAPTER TWO

### WORDS AS ‘NOTAE’

#### 1. Introduction

In the previous chapter, we saw that spoken words ‘signify’ (*significans/designans*) thoughts, which in most cases conceptualize extramental things. Boethius proposes this idea in his interpretation of the following passage from Aristotle’s *Peri hermeneias* (16a3–8):

(i) Ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα, καὶ τὰ γραφόμενα τῶν ἐν τῇ φωνῇ. καὶ ὥσπερ οὐδὲ γράμματα πᾶσι τὰ αὐτά, οὐδὲ φωναὶ αἱ αὐταί· ὧν μέντοι ταῦτα σημεῖα πρῶτων, ταῦτα πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταῦτά.

(ii) Now spoken sounds are symbols of affections in the soul, and written marks symbols of spoken sounds. And just as written marks are not the same for all men, neither are spoken sounds. But what these are in the first place signs of—affections of the soul—are the same for all; and what these affections are likenesses of—actual things—are also the same.

(iii) Sunt ergo ea quae sunt in voce earum quae sunt in anima passionum notae, et ea quae scribuntur eorum quae sunt in voce. Et quemadmodum nec litterae omnibus eadem, sic nec eadem voces; quorum autem hae primorum notae, eadem omnibus passionibus animae sunt, et quorum hae similitudines, res etiam eadem.

Boethius is a rather literal translator, but there is a noticeable difference between Aristotle’s text and Boethius’ translation in the beginning of *Peri hermeneias*. Here are (i) Aristotle’s Greek text edited by Minio-Paluello,<sup>1</sup> (ii) John Ackrill’s English translation,<sup>2</sup> and (iii) Boethius’ Latin translation edited by Minio-Paluello. As you see, Boethius assigns the same word ‘*nota*’ both to ‘σύμβολον’ (*symbolon*) and to ‘σημεῖον’ (*semeion*) in

---

<sup>1</sup> This text has several different readings. For the details, see Magee 1989: 7 sqq. Weidemann (2002: 134–151) makes convincing arguments for Minio-Paluello’s.

<sup>2</sup> Hereafter, I basically adopt John Ackrill’s English translations (Ackrill 1963). Here in text (ii), his translation is simply quoted, but later it is often used with slight alterations.

Aristotle's text. Norman Kretzmann claims that this is a serious mistake that greatly shaped the history of semantics.<sup>3</sup> Umberto Eco makes a similar comment: "It must be remembered that Boethius, in the translation of *De Interpretatione* used 'nota' for both 'symbolon' and 'semeion,' thus creating a first 'sad tale of confusion.'"<sup>4</sup>

Boethius sometimes complains about the fact that there are no Latin words to match perfectly their Greek counterparts.<sup>5</sup> For instance, he says that he worked hard to translate the Greek expression 'τὰ δὲ τὸν πέριξ' (inflections) into Latin and still feels some dissatisfaction with his translation '*quod conplectitur*.'<sup>6</sup> But of the text above, he says nothing. The non-literal translation would not be a careless mistake since he is meticulous about accurately translating Greek philosophical literature. In the beginning of his second commentary on *Isagoge*, he says that nothing is more desirable than accuracy in translations.<sup>7</sup> Is it likely, then, that his translation is a mistranslation?

As for 'nota,' John Magee says, "Its derivation from the supine of *noscere* indicates already the psychological orientation of Boethius' understanding of the word in this context. A *nota* is that which makes something to be known, or (by implication) reveals something that is known (*res nota*). Whether given or received, its primary relation is thought to be to the knowing mind rather than to the objects known."<sup>8</sup> As we saw in the previous chapter, Boethius claims that spoken words principally 'signify' thoughts and secondarily things (BoST<sub>1</sub>). In short, Magee suggests that Boethius' first semantic thesis is behind his choice of 'nota,' and I think this is probably right.<sup>9</sup> But is this the only reason for his choice? What does he intend by this translation?

<sup>3</sup> Kretzmann 1967 and 1974. As we will see later in this chapter, Kretzmann's interpretation of Aristotle has received more critiques than supporters, but recently obtained endorsement from an Augustinian scholar (Cary 2008: 32–34).

<sup>4</sup> Eco 1984: 6.

<sup>5</sup> This sort of complaint is often observed among early Latin writers: Lucretius, *De rerum natura* I, 136–139; Seneca, *Epistulae* 58, §1; Martianus Capella, *De nuptiis philologiae et mercurii* IV [334] 108.19–22.

<sup>6</sup> In *PH*<sup>2</sup> 70.21–71.3; Aristotle, *PH*, ch. 3, 16b18 ('τὰ δὲ τὸν πέριξ'). Cf. '*Inflexio*' is Boethius' rendering of 'ἐγκλισις' (Thörnqvist 2008b: 111). Ammonius uses 'ἐγκλισις' both for the inflection of a noun and a verb (In *PH* 38.33 and In *PH* 51.11). On the other hand, Boethius uses '*inflexio*' only for the inflection of a noun (In *PH*<sup>1</sup> 53.8 and 11; In *PH*<sup>2</sup> 65.2; *Introd. cat. syll.* 14.14 = 765b).

<sup>7</sup> In *Isag.*<sup>2</sup> 135.5–13.

<sup>8</sup> Magee 1989: 56–57.

<sup>9</sup> I will make further analysis of the implication of 'nota' by etymology in § 3.4 of this chapter.

In this chapter, I will examine the issues of 'mistranslation' and Boethius' choice of the word '*nota*' so as to understand more about Boethius' psychological explanation of language. I will reconsider the meanings of 'σύμβολον' and 'σημεῖον' in Aristotle's text and the background of Boethius' Latin translation with help from past studies on these problems. There has been much written on Aristotle's text. As for Boethius' translation, however, the only serious effort thus far is John Magee's.<sup>10</sup>

I will first consider what Aristotle means by 'σύμβολον' and 'σημεῖον' in the text. Next, I will analyze various examples of 'σημεῖον/*signum*,' 'σύμβολον/*symbolus* (-um)' and '*nota*' in Boethius' works and in the works that may have influenced him. These lexical analyses will reveal some significant cultural and philosophical background to Boethius' thoughts.

## 2. 'Σύμβολον' and 'Σημεῖον' in Aristotle (16a3–8)

Before assessing Boethius' translation, I will identify the meanings of 'σύμβολον' and 'σημεῖον,' which Boethius translates as '*nota*.' Concerning this problem, scholars' opinions are roughly divided into three groups: (A) 'Σύμβολον' and 'σημεῖον' are synonymous.<sup>11</sup> (B) 'Σύμβολον' and 'σημεῖον' have contrasting meanings: 'σύμβολον' is an artificial, conventional, or subjective sign while 'σημεῖον' is a natural or objective sign.<sup>12</sup> (C) 'Σύμβολον' and 'σημεῖον' have some difference in meaning, but the difference is not as great as in (B).<sup>13</sup> With examples of 'σύμβολον' and 'σημεῖον' from Aristotle's works, I will show that (C) is the most appropriate understanding of the meanings of these words in the text.

### 2.1. 'Σύμβολον' (16a4)

The major meaning of 'σύμβολον' is 'a tally,' the two halves of an object which is intentionally broken, for proof of the identity of the one who

<sup>10</sup> Magee 1989: ch. 2.

<sup>11</sup> Bonitz 1870 'σύμβολον'; Steinthal 1890: 186; Oehler 1962: 149, n. 2; Jackson 1969: 43 = repr., 130; Arens 1984: 27.

<sup>12</sup> Waitz 1844: 324–335; Aubenque 1962: 109 (but he denies the contrast in 16a3–8); Kretzmann 1967 and 1974; Pépin 1985.

<sup>13</sup> Brandt 1965: 33–35; Weidemann 1982; Chiesa 1986: 216; De Rijk 1988: 15; Manetti 1993: ch. 5.

presents the matching half.<sup>14</sup> In Aristotle's works, we find examples of 'σύμβολον' having this meaning. For instance, Aristotle says,

For he [Empedocles] says that there is as it were a tally (σύμβολον) in the male and female and that the whole [offspring] does not come from either.<sup>15</sup>

To explain what we may call 'a fertilized egg,' Aristotle compares it to a set of tallies, in which the one piece fits with the other and makes a unit.

In order to determine the meaning of 'σύμβολον' (16a4), we should pay special attention to its usage in *Peri hermeneias*. In chapter 2 of the work, Aristotle says,

[I say] 'by convention' (κατὰ συνθήκην) because no noun is a noun naturally but only when it has become a symbol (σύμβολον).<sup>16</sup>

In this statement, Aristotle claims that a noun requires convention to be a noun and it is a noun only when it becomes a symbol (σύμβολον). To be a symbol, then, requires convention. The meaning of 'σύμβολον' here is associated with its major meaning, 'a tally,' which is a token established by convention.<sup>17</sup> A word and a thing are just like a set of tallies in which the one allows the identification of the other. In hearing the word 'water,' those who have mastered English identify a cold transparent liquid. And in seeing the transparent liquid, they can say 'water.' The word 'σύμβολον' is not always used for a conventional sign,<sup>18</sup> but one of the crucial implications of 'σύμβολον' in *Peri hermeneias* is conventionality.<sup>19</sup>

An instance of 'σύμβολον' in the last chapter of the work shows another significant implication of this word.

<sup>14</sup> I paraphrase the description of the meaning of 'σύμβολον' first listed in Liddell and Scott's *Greek-English Lexicon*.

<sup>15</sup> GA I, ch. 18, 722b10: "φησὶ γὰρ ἐν τῷ ἄρρενι καὶ τῷ θήλει οἷον σύμβολον ἐνεῖναι, ὅλον δ' ἀπ' οὐδετέρου ἀπιέναι." I do not agree with Magee's explanation (1989, 39) that this 'σύμβολον' is not artificial (hence it does not mean a tally). With an addition of 'a sort of' (οἷον), Aristotle suggests that it is not a tally itself but it is *like* a tally. Another instance of 'σύμβολον' as a tally is in *Pol.* IV ch. 9, 1294a35.

<sup>16</sup> 16a26–28: "τὸ δὲ κατὰ συνθήκην, ὅτι φύσει τῶν ὀνομάτων οὐδὲν ἐστίν, ἀλλ' ὅταν γένηται σύμβολον." / 6.10–12: "«Secundum placitum» vero, quoniam naturaliter nominum nihil est, sed quando fit nota." I do not agree with Engels's (1963) interpretation of Aristotle's 'κατὰ συνθήκην' as 'by composition.' For a criticism of this interpretation, see Whitaker 1996, 45, n. 15.

<sup>17</sup> Whitaker 1996: 10. Cf. Aristotle, *Rhet.* I, ch. 4, 1360a14–15: "ἵνα πρὸς τούτους καὶ συνθῆται καὶ συμβολαὶ γίνωνται."

<sup>18</sup> E.g., Pindar, *Olympia* XII, 7–9 (for an omen); Aristotle, *Rhet.* III, ch. 16, 1417b2–5 (for the behavior of covering one's eyes before crying).

<sup>19</sup> Ax 1992: 254; Manetti 1993: 74; Whitaker 1996: 10; Weidemann 2002: 139.

Then, since this is how it is with beliefs, and spoken affirmations and negations are symbols (σύμβολα) of things in the soul, clearly it is the universal negation about the same thing that is contrary to an affirmation.<sup>20</sup>

Before this sentence, Aristotle discusses how the belief of a universal negation “none of the goods is good” is contrary to the belief of a universal affirmation “every good is good.” Now he says that spoken affirmations are ‘symbols’ of the ‘things in the soul,’ namely ‘beliefs.’ Given these conditions, he says, a spoken universal negation (e.g., “none of the good is good”) is contrary to a spoken universal affirmation about the same fact (e.g., “every good is good”). With the expression ‘symbol,’ Aristotle suggests a parallel between beliefs and spoken words. Spoken words are ‘symbols’ of beliefs. If A is contrary to B in belief, then A is contrary to B in spoken expression, too.<sup>21</sup> In general, if P is a symbol of Q, what occurs to P occurs to Q.

Besides these examples in *Peri hermeneias*, ‘σύμβολον’ in *Sophistical Refutations* (165a6–10) draws our attention since the word is used in a semantic context:

It is impossible in a discussion to bring in the very things discussed. Instead of these things, we use their names as symbols (σύμβολα). We suppose that what follows in the names, follows in the things as well, just as people who calculate suppose in regard to the pebbles.<sup>22</sup>

When we talk about giant pandas or nuclear weapons, we cannot bring these rare animals or dangerous weapons into our living rooms. For counting their numbers or discussing their dangers, we use their names instead of the things themselves. Thus Aristotle compares names to

<sup>20</sup> PH, ch. 14, 24b1–4: “Ὡςτ’ εἴπερ ἐπὶ δόξης οὕτως ἔχει, εἰσὶ δὲ αἱ ἐν τῇ φωνῇ καταφάσεις καὶ ἀποφάσεις σύμβολα τῶν ἐν τῇ ψυχῇ, δῆλον ὅτι καὶ καταφάσει ἐναντία μὲν ἀπόφασις ἢ περὶ τοῦ αὐτοῦ καθόλου.” / 37.12–15: “Quare si in opinione se sic habet, sunt autem hae quae sunt adfirmationes et negationes notae eorum quae sunt in anima, manifestum est quoniam etiam adfirmationi contraria quidem negatio circa idem universalis.”

<sup>21</sup> Ax 1992: 254; Weidemann 2002: 139.

<sup>22</sup> SE, ch. 1, 165a6–10: “ἐπεὶ γὰρ οὐκ ἔστιν αὐτὰ τὰ πράγματα διαλέγεσθαι φέροντας, ἀλλὰ τοῖς ὀνόμασιν ἀντὶ τῶν πραγμάτων χρῶμεθα [Ross: ὥς] συμβόλοις, τὸ συμβαῖνον ἐπὶ τῶν ὀνομάτων καὶ ἐπὶ τῶν πραγμάτων ἡγούμεθα συμβαίνειν, καθάπερ ἐπὶ τῶν ψήφων τοῖς λογιζομένοις.” / 6.3–6: “Nam quoniam non est ipsas res ferentes disputare, sed nominibus pro rebus utimur notis, quod accidit in nominibus in rebus quoque arbitramur accidere, velut in compotis ratiocinantibus.” For an analysis of this text, see Fait 1996. Ebbesen (1981a: 253) says that Boethius’ paraphrases this text in *In Isag.*<sup>2</sup> 138.18–22: “In numeris enim quicquid in digitis recte computantis eueniret, id sine dubio in res quoque ipsas necesse est euenire, ut si ex calculo centum esse contigerit, centum quoque res illi numero subiectas esse necesse est.”

pebbles used as counters. The counter is an artificial device for counting things. For instance, one counter is set to stand for one person and two counters are set to stand for two things. Or one counter is set to stand for ten people and two counters are set to stand for twenty people. And counters in different shapes or in different colors can be set to stand for different things in kind. For instance, red counters are set to stand for apples while yellow ones represent lemons. Likewise, names are set to stand for the things which they represent and a different name is assigned for a different thing in kind. In the comparison of names to counters, ‘symbol’ (σύμβολον) has the two significant implications: artificiality of the sign and parallel between the sign and the significate. In *Peri hermeneias*, Aristotle mentions the symbol-relation between spoken words and the affections of the soul or beliefs. In *Sophistical Refutations*, he mentions the symbol-relation between spoken words and things. The implications of the word ‘symbol’ in these two works overlap each other, though they are not completely identical. A conventional sign is a kind of artificial sign. An artificial sign is set up by a man, and it may be set up arbitrarily without any agreement with others, as is a pebble for personal calculation. A conventional sign is also set up by a man but requires the agreement of many in its use. A password for an Internet shopping site is an artificial sign but not a conventional sign.

## 2.2. ‘σημεῖον’ (16a6)

Some scholars claim that ‘σημεῖον’ means ‘a natural sign’ in contrast with ‘σύμβολον’ as an artificial or conventional sign. If we look at the following example in *Prior Analytics*, ‘σημεῖον’ appears to be so:<sup>23</sup>

A sign (σημεῖον), however, means to be either a necessary or a reputable demonstrative premise. If the thing [= P] is, a particular thing [= Q] is, or if the thing [= P] happened earlier or later, the particular thing [= Q] would have happened—that [i.e., the thing = P] is a sign of the particular thing’s [= Q’s] having happened or being. An enthymeme is a syllogism from likelihoods or signs. A sign is taken in three ways, corresponding to the ways the middle term in the figures is taken: for it is taken either as in the first figure, or as in the middle, or as in the third. For instance, proving that she is pregnant because she has milk from the first figure, for the middle term is having milk. Let A stand for being pregnant, B having milk, C for a woman.<sup>24</sup>

<sup>23</sup> With this text, Aubenque (1962: 109) says that ‘σημεῖον’ means a natural sign.

<sup>24</sup> *PrA* II, ch. 27, 70a6–16: “σημεῖον δὲ βούλεται εἶναι πρότασις ἀποδεικτική ἢ ἀναγκαία ἢ ἔνδοξος· οὗ γὰρ ὄντος ἔστιν ἢ οὗ γενομένου πρότερον ἢ ὕστερον γέγονε



Aristotle claims that a sign plays the role of a premise of a syllogism in three ways according to the places of its middle term. Each way, that is, each 'figure,' is like this. The first figure: B is A; C is B; therefore C is A. The second figure: C is A, C is B; therefore B is A. The third figure: B is A, C is A; therefore C is B. As an example of a syllogism in the first figure, he brings up the proof that a woman is pregnant based upon the fact that she has milk in her breasts. In a syllogistic form, the proof runs like this: every woman having milk is pregnant; she has milk; therefore, she is pregnant. Having milk, considered as a sign of pregnancy, is evidence from which any doctor would infer her pregnancy. One may raise an objection to the validity of this inference by saying that having milk is a sign of having a baby rather than that of pregnancy, but we had better waive the objection for understanding Aristotle's explanation of syllogisms.<sup>25</sup> In his other discussion on syllogisms in his *Rhetoric* (1357a22–b25), Aristotle gives us the inference that we would expect: "She has given birth because she has milk."<sup>26</sup>

So far, what is called 'a sign' can be taken as a natural or objective sign.<sup>27</sup> But subsequently Aristotle says,

But "The wise are good, for Pittakos is good" is through the last figure. A stands for good, B stands for the wise, C stands for Pittakos. So it is true to predicate both A and B of C except that people do not state the latter premise [i.e., "C is B" = "Pittakos is wise"] because they know it, though they do take the former [i.e., "A is B" = "Pittakos is good"]. And "She is pregnant because she is pale" is intended to be through the middle figure:

---

τὸ πρᾶγμα, τοῦτο σημεῖόν ἐστι τοῦ γεγονέναι ἢ εἶναι. Ἐνθύμημα δὲ ἐστὶ συλλογισμὸς ἐξ εἰκότων ἢ σημείων. λαμβάνεται δὲ τὸ σημεῖον τριχῶς, ὁσαυχὼς καὶ τὸ μέσον ἐν τοῖς σχήμασιν· ἢ γὰρ ὡς ἐν τῷ πρώτῳ ἢ ὡς ἐν τῷ μέσῳ ἢ ὡς ἐν τῷ τρίτῳ, οἷον τὸ μὲν δεῖξαι κύουσαν διὰ τὸ γάλα ἔχειν ἐκ τοῦ πρώτου σχήματος· μέσον γὰρ τὸ γάλα ἔχειν. ἐφ' ᾧ τὸ Α κύειν, τὸ Β γάλα ἔχειν, γυνὴ ἐφ' οὗ Γ." For Boethius' Latin translation of this text, see note 73 of this chapter. Ross moves the sentence "Ἐνθύμημα δὲ ἐστὶ συλλογισμὸς ἐξ εἰκότων ἢ σημείων" after 70a2, which is at the very beginning of chapter 27, but I place it in its traditional place. Hereafter, I adopt Robin Smith's English translation of the work with slight alterations. The revised Oxford translation by A.J. Jenkinson reads 'πρότερον ἢ ὕστερον' (70a8) with 'γέγονε τὸ πρᾶγμα' not with 'ἢ οὐ γενομένου'. For a helpful analysis of this text (*PrA* II, ch. 27), see Burnyeat 1982: § 2 and 1994: 31–35.

<sup>25</sup> Burnyeat (1982: 204–205, n. 30) suggests a way to deal with this objection.

<sup>26</sup> *Rhet.* I, ch. 2, 1357b15–16.

<sup>27</sup> Aubenque (1962: 107) says, "Le signe désigne donc une relation entre les choses et, qui plus est, fondée sur un rapport naturel (comme le rapport de cause à effet)." By Kretzmann (1974: 13), "A natural sign is a sign the correct interpretation(s) of which is (are) necessarily the same for all men."

for since paleness follows pregnant women and also follows this woman, people think it has been proved that she is pregnant. A stands for pale, B stands for being pregnant, C stands for a woman.<sup>28</sup>

Now Aristotle proposes the second and third figures of syllogism, which he soon after calls ‘nonbinding’ (λύσιμος), i.e., non-necessary.<sup>29</sup> According to the beginning of the previous passage, Aristotle says that a premise of these syllogisms, ‘a reputable premise,’ is also a ‘sign.’ In the second figure, Pittakos’ being good is a sign of the fact that every wise man is good. In this case, however, it is difficult to say that Pittakos’ being good is a natural sign from which anyone draws the conclusion that every wise man is good, or a fact with which the goodness of every wise man is causally connected. Hence, a sign (σημείον) cannot be simply identified with a natural sign in this part of *Prior Analytics*. Aristotle makes a similar discussion of syllogisms and signs in chapter 2 of book 1 of his *Rhetoric* (1357a22–1357b25).<sup>30</sup>

In fact ‘σημείον’ sometimes stands for an artificial sign in Aristotle’s works as well as in other Greek literature.<sup>31</sup> For instance, Aristotle says in *Metaphysics*:

Nor are the movements or spiral motions in the heavens like those of which astronomy makes discussions, nor have signs (σημεῖα) the same nature with the [actual] stars.<sup>32</sup>

In this passage, the signs (σημεῖα) are artificial devices invented by astronomers for explaining the movements of the stars.<sup>33</sup>

In order to determine the meaning of ‘σημείον’ (16a6), then, we should look again at *Peri hermeneias*, especially at the uses of the word around 16a6.

<sup>28</sup> *PrA* II, ch. 27, 70a16–24: “τὸ δ’ ὅτι οἱ σοφοὶ σπουδαῖοι, Πιττακὸς γὰρ σπουδαῖος, διὰ τοῦ ἐσχάτου. ἐφ’ ᾧ Α τὸ σπουδαῖον, ἐφ’ ᾧ Β οἱ σοφοί, ἐφ’ ᾧ Γ Πιττακός. ἀληθές δὴ καὶ τὸ Α καὶ τὸ Β τοῦ Γ κατηγορήσαι· πλὴν τὸ μὲν οὐ λέγουσι διὰ τὸ εἰδέναι, τὸ δὲ λαμβάνουσιν. τὸ δὲ κύειν, ὅτι ὥχρά, διὰ τοῦ μέσου σχήματος βούλεται εἶναι· ἐπεὶ γὰρ ἔπεται ταῖς κνούσαις τὸ ὥχρον, ἀκολουθεῖ δὲ καὶ ταύτῃ, δεδειχθαι οἴονται ὅτι κύει. τὸ ὥχρον ἐφ’ οὗ τὸ Α, τὸ κύειν ἐφ’ οὗ Β, γυνὴ ἐφ’ οὗ Γ.” For Boethius’ Latin translation of this text, see note 73 of this chapter.

<sup>29</sup> 70a29–35. Only the syllogism in the first figure is ‘binding’ (ἄλυτος).

<sup>30</sup> For a helpful analysis of his discussion in *Rhetoric*, see Burnyeat 1994.

<sup>31</sup> As Magee (1989: 40, n. 109) points out, Herodotus (*Historiae* VII, 128.8 and VIII, 92.18) uses ‘σημείον’ for naval signals and ensigns and Xenophon (*Cyropaedia* VIII 5.13) uses it for military standards.

<sup>32</sup> *Met.* III, ch. 2, 998a4–6: “οὐθ’ αἱ κινήσεις καὶ ἑλικες τοῦ οὐρανοῦ ὅμοιαι περὶ ὧν ἡ ἀστρολογία ποιεῖται τοὺς λόγους, οὔτε τὰ σημεῖα τοῖς ἀστροῖς τὴν αὐτὴν ἔχει φύσιν.”

<sup>33</sup> See Ross 1924: 232, the note for 998a6.

In *Peri hermeneias*, Aristotle uses the noun 'σημεῖον' five times (16a6, 16a16, 16b7, 16b10, 16b22), the adjective 'σημαντικός' (*semantikos*) eight times (16a19, 16a20, 16a24, 16b26, 16b31 twice, 17a1, 17a17, 17a23), and often uses the verb 'σημαίνειν' (*semainein*) and his invented verb 'προσσημαίνειν' (*prossemainein*) from the verb 'σημαίνειν' with the prefix 'προς' (*pros*). Among them, 'σημεῖον' (16a17) 'σημαίνειν' (16b10) and 'σημαντικόν' (16a20) are clearly used for conventional signs, i.e., nouns or verbs.<sup>34</sup> Hence, it is implausible to hold that 'σημεῖον' (16a6) specifically means a natural sign.<sup>35</sup>

In the given context, Aristotle uses 'σημεῖον,' 'σημαίνειν,' and 'σημαντικός' for the sign in general and the function of signification in general,<sup>36</sup> which are further conditioned with other expressions such as 'significant by convention' (σημαντικὴ κατὰ συνθήκην).<sup>37</sup>

### 2.3. 'Σημεῖον' $\supset$ 'Σύμβολον'

The results of our survey are as follows: (1) In the text, 'σύμβολον' means a conventional sign. (2) With 'σύμβολον,' Aristotle intends to convey the parallel between the sign (spoken words) and the significate (thoughts). (3) In the text, 'σημεῖον' means a sign in general and includes 'σύμβολον'—a conventional sign—as a sub-species. If X is a 'σύμβολον,' X is necessarily a 'σημεῖον'.<sup>38</sup> If one says that spoken words are 'symbols' (σύμβολα) of the affections in the soul, one *does not have to* say further that spoken words are 'signs' (σημεῖα) of the affections. It is justifiable to use the same expression for 'symbol' (σύμβολον) and 'sign' (σημεῖα) in the text insofar as the selected word conveys the implications of 'symbol' (σύμβολον)—a sign set by convention in such a manner that it corresponds to the significate.

<sup>34</sup> Irwin (1982: n. 15) and Magee (1986: 275) make this point. Kretzmann (1974: 19, n. 10) has noticed this at 16b10 and 16b22.

<sup>35</sup> Kretzmann's claim (1974: 7) that 'σημεῖον' in 16a6 is contrasted with 'σύμβολον' in 16a3 and specifically has the meaning of a natural sign is unconvincing. For Kretzmann's counterargument to this criticism and a further objection to his argument, see Polansky and Kuczewski 1990: 59, n. 17.

<sup>36</sup> Weidemann 1982: 245; Chiesa 1986: 216; De Rijk 1988: 15.

<sup>37</sup> Aristotle, *PH*, ch. 2, 16a19.

<sup>38</sup> Ax 1992: 254: "Es ist deshalb im Prinzip mit σημεῖον (16a6) kontextuell austauschbar." As Magee (1989: 54–55) points out, Ammonius (*In PH* 19.34) uses 'σύμβολον' and 'σημεῖον' interchangeably.

### 3. *Boethius' Latin Translation of 'Nota'*

As for Boethius' translation of the discussed text of Aristotle, it is natural to wonder why Boethius chose '*nota*' for 'σύμβολον' and 'σημεῖον,' not their Latin counterparts '*symbolus* (-um)' and '*signum*.' In fact, William of Moerbeke translates them as '*symbolum*' and '*signum*.'<sup>39</sup> In the 13th century, Robert Kilwardby, prompted by the same question, says in his commentary on *Peri hermeneias*: "A *nota* is insofar as it is for the mouth of the speaker but a *signum* is insofar as it is for the ears of the listener."<sup>40</sup> That is to say, a sign is a '*nota*' for a speaker who shows the sign and it is a '*signum*' for the listener who receives the sign. This is an interesting interpretation, but did Boethius understand the two expressions, '*signum*' and '*nota*,' in this way? Magee tries to explain the reasons for Boethius' choice with many examples of these words in classical and patristic literature. Being partially indebted to Magee's survey, I will analyze different uses of these terms in order to understand the intentions of Boethius' choice.

#### 3.1. *Why not 'Symbolum' for 'Σύμβολον'?*

Let's first look at the translation of 'σύμβολον' as '*nota*.' Magee suggests that it is possible that Boethius avoids '*symbolum*' since the word may have sounded slightly foreign to Boethius and his Roman contemporaries.<sup>41</sup> He also proposes that it may be because the Latin word has an unsuitable meaning for *Peri hermeneias*; '*symbolum*' in the Latin patristic tradition is evocative of the Apostles' Creed (*Symbolum Apostolorum*).<sup>42</sup>

Are these valid reasons? As for the first point, Lewis and Short's *Latin Dictionary* says that the Latin word '*symbolus*' or '*symbolum*' is mostly seen in pre-and post-classical periods.<sup>43</sup> In classical literature, we find only a few examples.

<sup>39</sup> AL II-2, 41.2-8.

<sup>40</sup> "[N]ota est in quantum est in ore proferentis, set signum est in quantum est in aure audientis." The unpublished text is taken from Rosier 1994: 97, n. 25.

<sup>41</sup> Magee 1989: 56.

<sup>42</sup> Magee 1989: 56. The second meaning of '*symbolum*' in Blaise's *Latin Dictionary of Christian Authors* is "le symbole de la foi, le symbole des apôtres, profession de foi au baptême." For the history of '*symbolum*' as the Apostles' Creed, see Kelly 1972: 52-61.

<sup>43</sup> According to Müri 1931: 8, n. 4, Pliny's use cited later (see note 45 of this chapter) is the earliest recorded use of the neuter form '*symbolum*'.

In Plautus' *Pseudolus*, the word stands for a seal as 'a token':

Because of this the soldier left a seal as a token (*symbolus*)—his own image stamped on wax with his ring—and he [i.e., the pimp] would send me [i.e., the courtesan] along with the man, who brought him a similar seal as a token (*symbolus*).<sup>44</sup>

In the comedy, a soldier in Macedonia bought a courtesan for 80 minai and had put down 60 minai before heading home. Leaving his seal as a token (*symbolus*), he made a promise to the pimp that he would pay the remaining balance, 20 minai, by the due date, so that the pimp could give the courtesan to the man who brings him the money and the seal as a token.

In Pliny's *Natural History*, the word means 'a ring':

The Greeks called it [i.e., the ring] [ῥάκτυλιος] by 'a finger' [i.e., ῥάκτυλος]; with regard to us, the ancients (*prisci*) called it 'ungulus', but afterwards both the Greeks and our people called it 'symbolum'.<sup>45</sup>

Pliny says that '*symbolum*' replaces '*ungulus*' as a name of a ring. He does not explain how it happened, but it is plausible that a ring came to be called '*symbolum*' because a seal of a ring had been used as '*symbolum*', i.e., a token, as is described by Plautus.

Thus, in those classical Roman writings, the word '*symbolus* (-um)' has the meaning of 'a token' or a derivative meaning from 'a token.'

'*Symbolum*' as 'a token' is found in Patristic literature, too. In *Against Marcion*, Tertullian says:

Why, Shipmaster of Pontus, supposing you have never accepted any concealed or illicit merchandise in your boat, have never stolen any cargo and never committed adultery, and are surely more careful and trustworthy in the things of God, I would like you to tell us under what symbol (*symbolum*) you accepted Paul as an apostle, who had stamped him with the mark of the title [i.e., 'apostle'], who entrusted him to you, and who put him in your charge?<sup>46</sup>

<sup>44</sup> *Pseudolus* I, i, 53–56: "Ea caussa miles hic reliquit symbolum, expressam in cera ex anulo suam imaginem, ut qui huc adferret eiuis similem symbolum cum eo simul me mitteret." I adopt Paul Nixon's translation with some alterations. Similar examples are in *Pseudolus* II, ii, 1–5 and in *Bacchides* II, iii, 263–266.

<sup>45</sup> *Naturalis historia* XXXIII, 1 (4), 10–11, 107.22–108.1: "Graeci a digitis appellavere, apud nos prisci ungulum vocabant, postea et Graeci et nostri symbolum." In the above translation, I supplement the Greek word in the square brackets. The Greek counterpart of '*ungulus*' is ῥάκτυλος, meaning 'crooked.'

<sup>46</sup> *Adv. Marc.* V, I: "Quamobrem, Pontice naulere, si nunquam furtivas merces vel

Tertullian raises the question of why St. Paul was admitted as an apostle after Christ had set up twelve disciples for the duties of apostleship. Now he asks the question with the metaphor of obtaining a ship ticket. For St. Paul to be admitted to the ship toward heaven through apostleship, he must have 'a ticket' or 'a token' (*symbolum*) that allows him to do so, but who issued the ticket for him? The answer 'Jesus Christ' is given soon after.<sup>47</sup>

Augustine has some knowledge of the original meaning of '*symbolum*.' He made sermons on the '*Symbolum*,' i.e., the Apostles' Creed. In one of the sermons, he explains why the Apostles' Creed is called a '*symbolum*':

It is time for you to receive the Symbol (*symbolum*) in which is concisely contained everything that is believed for the sake of eternal salvation. It is called 'Symbol' by a word (*vocabulum*) transferred [from another usage] because of some similarity. Merchants make a 'symbol' (*symbolum*) with each other, which guarantee their loyalty to the terms of their association. And your association is concerned with spiritual merchandise, so that you may be like dealers looking for a good pearl (Mt. 13: 45). This pearl is the charity, which will be poured out in your hearts through the Holy Spirit, who will be given to you (Romans 5:5).<sup>48</sup>

Merchants used a token, i.e., a '*symbolum*,' to prove their affiliation with a particular commercial society so that they maintained trust in the contract among all the members. The Apostles' Creed has a similar function in the Church, which is an association for spiritual goods. The Church demands that believers show 'a token' through which they prove themselves to belong to the spiritual association. The token is 'the Symbol' (*symbolum*), that is, the Apostles' Creed.

---

illicitas in acatos tuas recepisti, si nullum omnino onus avertisti vel adulterasti, cautior utique et fidelior in dei rebus edas velim nobis, quo symbolo suscepisti apostolum Paulum, quis illum tituli caractere percusserit, quis transmiserit tibi, quis imposuerit."

<sup>47</sup> *Adv. Marc.* V, I.

<sup>48</sup> *Sermo* 212, PL 38, 1058 (Punctuation altered from Migne): "Tempus est ut Symbolum accipiatis, quo continetur breviter, propter aeternam salutem, omne quod creditis. Symbolum autem nuncupatur a similitudine quadam, translato vocabulo. Quia symbolum inter se faciunt mercatores, quo eorum societas pacto fidei teneatur. Et vestra societas est commercium spirituum, ut similes sitis negotiatoribus bonam margaritam quaerentibus (*Matth.* XIII, 45). Haec est charitas, quae diffundetur in cordibus vestris per Spiritum sanctum, qui dabitur vobis (*Rom.* V, 5)." I adopt Edmund Hill's translation with some alterations.

Given these instances of '*symbolus* (-um)' as 'a token' in classical and Patristic literature,<sup>49</sup> I think it unlikely that Boethius was ignorant about the original meaning of '*symbolum*' as 'a token' or that he felt the word to be too foreign to use.

It is true, however, that '*symbolum*' is a word coined simply by Romanization of the Greek word 'σύμβολον.' In sermons, it was said that the Apostles' Creed was called '*symbolum*' in Greek and '*conlatio*' in Latin.<sup>50</sup> In his translations, Boethius seems to try using genuine Latin words as much as possible.<sup>51</sup> He probably believed that this was the best way to integrate Greek philosophy into Roman culture. This attitude may have made him shy away from '*symbolum*.'

As for Magee's second point, I think that we should not limit our attention to the Christian tradition of the Apostles' Creed. After Aristotle, 'σύμβολον' is often used in association with spiritualism in different religious groups. In this context, 'σύμβολον' is a maxim or a sign such as a pentagon, whose hidden meaning can be truly understood only by the members of the cult.

Neoplatonism, especially in Iamblichus' tradition, incorporates the traditions of Pythagoreanism and some other mystic cults.<sup>52</sup> In *On the Mysteries*, Iamblichus attempts to give a philosophical basis for theurgic rites, combining the teaching of those mystic cults with Neoplatonism.<sup>53</sup> With this incorporation of theurgy, Iamblichus diverges from Porphyry,<sup>54</sup> whom Boethius reveres most.<sup>55</sup> In the work, 'σύμβολον' is often presented as a vessel of the magical power to unite with divine beings:

The theurgist, through the power of arcane symbols, commands cosmic entities no longer as a human being or employing a human soul, but

<sup>49</sup> For the transmissions of these classical works, see Reynolds 1983. Plautus' works were especially popular (op. cit., 302–303).

<sup>50</sup> [Ps-]Ambrose, *Explanatio symboli*, § 2 = PL 17, 1155c: "Symbolum Graece dicitur, Latine autem conlatio." Earlier than Ambrose, Rufinus of Aquileia makes a similar statement in *Expositio symboli*, 2, 134.

<sup>51</sup> Cicero has a similar attitude. See, *Acad.* I vii [25].

<sup>52</sup> For 'σύμβολον' in mysticism, see Müri 1931: appendix III. For 'σύμβολον' in Pythagoreanism, see Centrone 1996: ch. 3. For 'σύμβολον' in Neoplatonism, see Crome 1970 and Bonfiglioli 2008. Bonfiglioli draws our attention to the relationship between 'σύμβολον' and 'ἄγαλμα.' See that these two expressions appear in the passage of Proclus cited below (note 57 of this chapter).

<sup>53</sup> For Iamblichus' introduction of theurgy into Neoplatonism, see Shaw 1995.

<sup>54</sup> Clarke et al. 2003: xxvi.

<sup>55</sup> In the previous chapter (§ 4), we saw how Boethius may depend on Porphyry in his first semantic thesis (BoST<sub>1</sub>). We will see his reliance on Porphyry more in the following chapters.

existing above them in the order of the gods, and uses threats greater than are consistent with his own proper essence—not, however, with the implication that he would perform all the things that he asserts, but using such discourses (λόγοι) that teach how much, how great and what sort of power he holds through the unification with the gods, which knowledge of the ineffable symbols have granted him.<sup>56</sup>

Proclus, who had read Iamblichus, uses ‘σύμβολον’ in a similar context:

Just as theurgy, through some symbols (σύμβολα), calls forth plentiful goodness of gods into the illumination of the artificial statues (ἀγαλμάτα); so in the same manner, the intellectual knowledge of gods, through compositions and divisions of the sounds [of words], manifests the hidden essence of gods.<sup>57</sup>

As for the Christian tradition, the early Greek fathers use ‘σύμβολον’ in condemning pagan cults. For instance, Clement of Alexandria says in *Protreptics*, i.e., *The Exhortation to the Greeks*:

And of the rite it is not useless for you to quote the useless symbols (σύμβολα) for a condemnation.<sup>58</sup>

Clement of Alexandria tries to prove the superiority of Christianity to pagan cults and pagan ways of life. In this particular passage, he denounces the mysteries of Dionysius for their savage character. In the same work, he uses ‘σύμβολον’ also in disparaging the mysteries of Demeter.<sup>59</sup> Similarly, Origen employs ‘σύμβολον’ in reproaching the mysteries of Mithra.<sup>60</sup>

<sup>56</sup> *De mysteriis* VI, 6: “Ο θεουργός διὰ τὴν δύναμιν τῶν ἀπορρήτων συνθημάτων οὐκέτι ὡς ἄνθρωπος οὐδ’ ὡς ἀνθρωπίνη ψυχῇ χρώμενος ἐπιτάττει τοῖς κοσμοκοίς, ἀλλ’ ὡς ἐν τῇ τῶν θεῶν τάξει προϋπάρχων μείζοσι τῆς καθ’ ἑαυτὸν οὐσίας ἐπανατάσσει χρήται· οὐχ ὡς ποιήσων πάντα ἅπερ δισχυρίζεται, ἀλλ’ ἐν τῇ τοιαύτῃ τῶν λόγων χρήσει διδάσκων ὅσιν καὶ ἡλίκην καὶ τίνα ἔχει τὴν δύναμιν διὰ τὴν πρὸς θεοὺς ἔνωσιν, ἣν παρέσχηκεν αὐτῷ τῶν ἀπορρήτων συμβόλων ἢ γνώσις.” With some alterations, I adopt a translation made by E.C. Clarke, J.M. Dillion and J.P. Hershbelle. For Iamblichus’ ‘σύμβολον,’ see Crome 1970: ch. 1.

<sup>57</sup> *Theologica platonica* I, 29: “καὶ ὥσπερ ἡ θεουργία διὰ δὴ τινων συμβόλων εἰς τὴν τῶν τεχνητῶν ἀγαλμάτων ἑλλαμψιν προκαλεῖται τὴν τῶν θεῶν ἀφθονον ἀγαθότητα, κατὰ τὰ αὐτὰ δὴ καὶ ἡ νοεράτων θείων ἐπιστήμη συνθέσσει καὶ διαιρέσει τῶν ἴχων ἐκφαίνει τὴν ἀποκεκρυμμένην οὐσίαν τῶν θεῶν.” For Proclus’ ‘σύμβολον,’ see Crome 1970: ch. 4 and Van den Berg 2001: 79–81.

<sup>58</sup> *Protrepticus*, c.2, 19.3–4: “Καὶ τῆσδε ὑμῖν τῆς τελετῆς τὰ ἀχρεῖα σύμβολα οὐκ ἀχρεῖον εἰς κατάγνωσιν παραθέσθαι.”

<sup>59</sup> *Protrepticus*, c.2, 17.4 and 17.8. For a philosophical analysis of Clement’s use of ‘σύμβολον,’ see Bonfiglioli 2008: 165–176.

<sup>60</sup> *Contra Celsum* VI, 22.



Like these Greek fathers, the early Latin fathers use '*symbolum*' in condemning the mystic signs of pagan religions. In *The Errors of the Pagan Religions*, Firmicus Maternus says,

Now I should like to explain what signs (*signa*) or symbols (*symbola*) the wretched human throng uses for purposes of recognition in the superstitious cults themselves. For they have their own signs, their own responses, which the teaching of the devil has transmitted to them in the meetings of those impious cults.<sup>61</sup>

In this discussion, magical signs used in the cults of Attis are called 'symbols.' While thus being used negatively in disparaging pagan liturgies, '*symbolum*' is used also positively in asserting the significance of the Christian baptismal liturgy. In one of his letters, Cyprian writes:

Here some may interpose with the following objection: The Novatian, he [Cyprian's opponent] may contend, observes the same law as the Catholic Church; he [the Novatian] baptizes using the same symbol (*symbolum*) as we do; he acknowledges the same God as the Father, the same Christ as the Son, and the same Holy Spirit; he can exercise the power to baptize because his baptismal interrogation seems to be no different from ours. Whoever thinks he [the opponent] should raise such an objection has to realize first and foremost that neither is there one law of symbol (*symbolum*) common to us and to schismatics, nor the same baptismal interrogation.<sup>62</sup>

This letter provides the earliest recorded use of '*symbolum*' in connection with the Apostles' Creed. But a translator of this work notes, "he [Cyprian] is not here thinking exclusively of a *verbal* declaration but of the general baptismal ceremony which altogether constitutes a pledge of faith and which certainly does include some binding verbal responses."<sup>63</sup> Cyprian says that the Novatians, a group of schismatics, no longer held

---

<sup>61</sup> *De errore profanarum religionum*, ch. 18: "Libet nunc explanare quibus se signis uel quibus symbolis in ipsis superstitionibus miseranda hominum turba cognoscat. Habent enim propria signa, propria responsa, quae illis in istorum sacrilegiorum coetibus diaboli tradidit disciplina." I adopt Clarens Forbes's translation with some alterations. Forbes (1970: 194, n. 335) notes that Maternus uses '*symbolum*' exclusively for pagan affairs.

<sup>62</sup> *Epistula* 69, VII 1, 480.148–155: "Quod si aliquis illud opponit ut dicat eandem Nouatianum legem tenere quam catholica ecclesia teneat, eodem symbolo quo et nos baptizare, eundem nosse Deum patrem, eundem filium Christum, eundem Spiritum Sanctum, ac propter hoc usurpare eum potestatem baptizandi posse quod uideatur interrogatione baptismi a nobis non discrepare: sciat quisque hoc opponendum putat primum non esse unam nobis et schismaticis symboli legem neque eandem interrogationem."

<sup>63</sup> Clarke 1984: 182, n. 26.

the same symbol, that is, the same liturgy including the creedal formulas of baptism, as orthodox Christians. For, when they answer, “Yes” to the baptismal interrogation, “Dost thou then believe in the remission of sins, and everlasting life, through the Holy Church?” they were liars because they did not have such a Church.<sup>64</sup>

Boethius himself and his contemporary readers must have been familiar with at least one of these loaded meanings of ‘*symbolum*’ as a mystical sign or as the Apostles’ Creed. On the other hand, ‘σύμβολον’ in Aristotle’s text has nothing to do with a hidden or a religious code shared only by people within a sect. In the translation of Aristotle’s text, Boethius may have thought it better to avoid the word ‘*symbolum*’ because the word has an association with such irrelevant meanings as to cause misunderstanding regarding the nature of ‘sign.’

### 3.2. *Why not ‘Signum’ for ‘Σημεῖον’?*

There are several reasons to eschew the use of ‘*symbolum*’ for ‘σύμβολον,’ but what about ‘*signum*’? First, it should be noted that Boethius rarely says that words are ‘signs’ (*signa*) in his works. Unlike Augustine who explicitly claims that a word (*verbum*) is a ‘sign’ (*signum*),<sup>65</sup> Boethius never makes such a general claim. Only in a few occasions does he say that a particular word ‘X’ is a ‘sign’ (*signum*) of something.<sup>66</sup> Magee properly expresses the difference between Boethius and Augustine: whereas Augustine’s semantics is ‘a theory of signs,’<sup>67</sup> Boethius’ is ‘a theory of signification.’<sup>68</sup>

But what makes Boethius use ‘*nota*’ rather than ‘*signum*’? In classical Latin literature, ‘*signum/signa*’ and ‘*nota/notae*’ are sometimes used almost interchangeably:

<sup>64</sup> *Epistula*, *ibid.*

<sup>65</sup> *De magistro* II, 3, 159.78–79; *De doctrina christiana* I, ii, 2 [5] 9.11–12.

<sup>66</sup> *In PH*<sup>2</sup> 34.13–19: “Fit vero haec passio velut figurae alicuius impressio, sed ita ut in animo fieri consuevit. Aliter namque naturaliter inest in re qualibet propria figura, aliter vero eius ad animum forma transfertur, velut non eodem modo cerae vel marmori vel chartis litterae id est vocum signa mandatur.” Magee (1989: 63) attempts to explain this instance of ‘*signum*,’ which Meier-Oeser (1997: 36) follows. Another example is in his translation of *Peri hermeneias* at 16b 22–23 (cited in note 82 of this chapter).

<sup>67</sup> For Augustine’s theory of signs, see Markus 1957; Jackson 1969; Baratin 1981; Manetti 1993: ch. 10.

<sup>68</sup> Magee 1989: 61.

(i) They may not discern the causes themselves, yet they do discern *signa* and *notae* of those causes.<sup>69</sup>

(ii) *Signa* and *notae* of feet are manifest.<sup>70</sup>

If they are synonymous, why did Boethius not make a seemingly easier choice, i.e., '*signum*' for 'σημεῖον'? Magee claims that for Boethius, a *signum* is not exactly the same thing as a *nota*, which is why he did not use '*signum*' in the translation.<sup>71</sup> Magee draws our attention to the text of Aristotle's *Prior Analytics* (70a6–24) that I discussed above (§ 2.2).<sup>72</sup> In his translation of the text, Boethius renders 'σημεῖον' as '*signum*.' Let's look at an English translation of Boethius' Latin translation:

A sign (*signum*), however, means to be either a necessary or a probable (*probabilis*) demonstrative proposition (*propositio*). If the thing [= P] is, a particular thing [= Q] is, or if the thing [= P] happened earlier or later, the particular thing [= Q] would have happened—that [i.e., the thing = P]—is a sign of the particular thing's [= Q's] being or having happened or being going to be. An enthymeme is a syllogism from likelihoods (*verisimilia*) or signs (*signa*). A sign is taken in three ways as many as the middle term in the figures is taken: for it is taken either as in the first figure, or as in the middle, or as in the third. For instance, proving that she is pregnant because she has milk from the first figure (for the middle term is 'having milk'; A stands for 'being pregnant,' B 'having milk,' C for 'a woman'). But "The wise are good," because "Pittakos is good" is through the last figure. (A stands for 'good,' B stands for 'the wise,' C stands for 'Pittakos.') So it is true to predicate both A and B of C except that people do not state the latter premise [i.e., "C is B" = "Pittakos is wise"] because it is obvious, though they do take the former [i.e., "A is B" = "Pittakos is good"]. And "She is pregnant because she is pale" means to be through the middle figure (for since paleness follows pregnant women and also follows this woman, people think it has been proved that she is pregnant. A stands for 'pale,' B stands for 'being pregnant,' C stands for 'a woman').<sup>73</sup>

<sup>69</sup> Cicero, *De divinatione* I, lvi [127]: "Qui etsi causas ipsas non cernunt signa tamen causarum et notas cernunt."

<sup>70</sup> Ovid, *Fasti* III [650]: "Apparent signa notaeque pedum."

<sup>71</sup> Magee 1989: 63.

<sup>72</sup> Magee 1989: 57.

<sup>73</sup> AL III-1, 137.14–138.2: "Signum autem vult esse propositio demonstrativa vel necessaria vel probabilis; nam quo existente est vel quo facto prius vel posterius facta est res, signum est vel esse vel fuisse vel quoniam erit. Enthymema ergo est syllogismus ex verisimilibus vel signis; accipitur autem signum tripliciter, quotiens et medium in figuris: aut enim ut in prima, aut ut in media, aut in tertia; ut ostendere quidem parientem eo quod lac habeat, ex prima figura (medium enim 'lac habere,' in quo A 'parere,' B 'lac habere,' 'mulier' in quo C); quoniam autem sapientes studiosi, nam Pittacus studiosus, per

Boethius' translation says basically the same as Aristotle's original text. There is a small difference in the second sentence. The Greek text edited by David Ross says that the thing is "a sign of a particular thing's having happened or being," but Boethius' Latin translation says that it is "a sign of a particular thing's being or having happened or being about to be." Presumably Boethius possessed a Greek copy of the *Prior Analytics* that had this different reading.<sup>74</sup> The difference does not affect the overall discussion. A sign (*signum*) is characterized as a fact (or a proposition that describes the fact) from which one draws a conclusion of a syllogism. In general, when P is a sign of Q [P, Q = propositions], the following syllogism is made. X stands for an understood proposition that becomes one of two premises.

Major Premise: P		Major Premise: X
Minor Premise: X	or	Minor Premise: P
Conclusion: Q		Conclusion: Q

In most of the cases when we take P as a sign of Q, we do not make such a syllogism in our minds. The 'sign' is, however, at least potentially, a proposition that becomes a premise of a syllogism, either necessary or just probable.

Magee connects 'σημεῖον/*signum*' in *Prior Analytics* with Cicero's definition of '*signum*.'<sup>75</sup> In *On Invention*, Cicero says:

A sign (*signum*) is something apprehended by one of the senses and signifies something that seems to arise from it. It may have occurred before [the event] or at the time of the event itself (*negotium*), or have followed after it; and yet it requires further witness and greater corroboration—for instance, blood, flight, pallor, dust and those which are similar to these.<sup>76</sup>

---

postremam (in quo A 'studiosum', in quo B 'sapientes', in qui C 'Pittacus'; verum ergo et A et B de C praedicari, sed hoc quidem non dicunt eo quod palam sit, illud vero sumunt); peperisse autem quoniam pallida, per mediam figuram vult esse (quoniam enim sequitur parientes pallor, sequitur autem et hanc, ostensum esse arbitrantur quoniam peperit; 'pallor' in quo A, 'parere' in quo B, 'mulier' in quo C)." Cf. Two philosophical expressions in this text—'probabile' and 'verisimile'—appear at the same time in Cicero's *Acad.* II, x [32]: "Volunt enim ... probabile aliquid esse et quasi veri simile, eaque se uti regula et in agenda vita et in quaerendo ac disserendo." For further background information on these Latin terms, see Glucker 1995.

<sup>74</sup> Minio-Paluello's conjecture of Boethius' MS (OCT, Appendix, p. 108, see 70a9): "ἢ εἶναι ἢ γεγονέναι ἢ ἔσται."

<sup>75</sup> Magee 1989: 57–58. Thus Claude Panaccio (1996:10) understands Magee: "John Magee mentionne ... qu'en général Boèce utilise *signum* dans le sens ancien d'indice ou d'élément dans une inférence, au sens de Cicéron donc."

<sup>76</sup> Cicero, *De inv.* I, xxx [48]: "Signum est quod sub sensum aliquem cadit et quiddam

Obviously there is some connection between Aristotle's discussion in *Prior Analytics* and Cicero's definition of a sign in *On Invention*. As I said, Aristotle makes a similar discussion in his *Rhetoric*. It is more likely that his *Rhetoric* influenced Cicero, perhaps indirectly.<sup>77</sup> There is, however, a remarkable difference between them. Aristotle calls a sign that produces a necessary inference 'evidence' (τεκμήριον), which Boethius translates as 'prodigium'.<sup>78</sup> Thus Aristotle makes a distinction between 'evidences' and 'reputable signs,' but the 'evidence' is a 'sign' by his definition of a sign. On the other hand, Latin rhetoricians such as Cicero and Quintilian exclude 'evidence' from 'sign' (*signum*) by definition.<sup>79</sup>

Except in a few examples, Boethius uses '*signum*' as in Aristotle's definition. That is to say, what he calls '*signum*' includes 'evidences' (τεκμήρια/*prodigia*). In the second commentary on *Peri hermeneias*, Boethius calls that which makes a necessary inference 'a sign' (*signum*):

And if medicine observes in the face of a sick person a fatal sign (*signum*) that it cannot be otherwise than that he is dying, although it is unknown to us because of our inexperience in the art [of medicine], it must not be judged for that reason that the sick man's being about to die is in either of two ways (*utrumlibet*) and of a contingent nature.<sup>80</sup>

As is in the 'milk-pregnancy' example in *Prior Analytics*, here is an example of a sign that can make a syllogism in the first figure. Some symptom observed in the face of a patient, from which his death is necessarily inferred, is called 'a sign.'

Other examples of '*signum*' in his works are taken as facts that produce non-necessary inferences, either valid or invalid. For instance, one part of his Latin translation of *Peri hermeneias* states this:

Thus the nouns and verbs by themselves—for instance 'man' or 'white' when nothing further is added—are like the thoughts that are without combination and division; for so far there is neither the true nor false.

---

significat quod ex ipso profectum uidetur, quod aut ante fuerit aut in ipso negotio aut post sit consecutum et tamen indiget testimonii et grauioris confirmationis, ut cruor, fuga, pallor, puluis, et quae his sunt similia." Quintilian gives a similar definition of a sign (*Inst.* V, c.9 [9–11]).

<sup>77</sup> For Cicero's acquaintance with Aristotle's works, see Long 1995: 42–43.

<sup>78</sup> Aristotle, *PrA* II, ch. 27, 70b2–4; Boethius tr., 138.16–19 and also 190.23–26.

<sup>79</sup> For '*signum*' in the Latin rhetorical tradition, see Manetti 1993: ch. 9.

<sup>80</sup> *In PH*<sup>2</sup> 193.10–15: "[N]ec si letale signum in aegrotantis facie medicina deprehendit, ut aliud esse non possit nisi ille moriatur, nobis autem ignotum sit propter artis inperitiam, idcirco illum aegrum esse moriturum utrumlibet et contingentis naturae esse iudicandum est."

A sign (*signum*) of this is [that]: ‘a/the goat-stag’ (*hircocervus*) signifies something, but it does not yet signify the true or false unless ‘to be’ or ‘not to be’ is added, either simply or according to time.<sup>81</sup>

This is a part of chapter 1 of *Peri hermeneias* (16a13–18), but Boethius now renders ‘σημεῖον’ as ‘*signum*’.<sup>82</sup> What is called ‘*signum*’ is the fact that the word ‘goat-stag’ signifies no truth-value, and the fact is taken to indicate that a noun or a verb alone signifies no truth-value.

In Boethius’ second commentary on *Peri hermeneias*, we find the following:

(α) Theophrastus also yields the same sign (*signum*) that this is Aristotle’s work. In every [matter] that he himself disputes after the teacher, he touches briefly what he recognized had been said by Aristotle, while he pursues more attentively other things not discussed by Aristotle. Here, he also did the same.<sup>83</sup>

(β) This is a sign (*signum*) of [the fact] that the signification of spoken words (*voces*) is contained in letters: it is necessary that spoken words are also different where letters are different and the things that are written are not the same. This is Alexander[’s exposition].<sup>84</sup>

In text (α), Boethius says that Theophrastus’ discussion of affirmation and negation is considered to be ‘a sign’ through which the authenticity of *Peri hermeneias* is inferred.<sup>85</sup> In each point of his discussion, Theophras-

<sup>81</sup> 5.15–6.3: “Nomina igitur ipsa et verba consimila sunt sine compositione et divisione intellectui, ut ‘homo’ vel ‘album’, quando non additur aliquid; neque enim adhuc verum aut falsum est. Huius autem signum: ‘hircocervus’ enim significat aliquid, sed nondum verum vel falsum, si non vel ‘esse’ vel ‘non esse’ addatur vel simpliciter vel secundum tempus.”/16a13–18: “τὰ μὲν οὖν ὀνόματα αὐτὰ καὶ τὰ ῥήματα ἔοικε τῷ ἄνεν συνθέσεως καὶ διαυρέσεως νοήματι, οἷον τὸ ἄνθρωπος ἢ λευκόν, ὅταν μὴ προστεθῇ τι· οὐτε γὰρ ψεῦδος οὐτε ἀληθές πω. σημεῖον δ’ ἐστὶ τοῦδε· καὶ γὰρ ὁ τραγέλαφος σημαίνει μὲν τι, οὐπω δὲ ἀληθές ἢ ψεῦδος, ἐὰν μὴ τὸ εἶναι ἢ μὴ εἶναι προστεθῇ ἢ ἀπλῶς ἢ κατὰ χρόνον.”

<sup>82</sup> Another example in which Boethius renders ‘σημεῖον’ as ‘*signum*’ is *Peri hermeneias*, ch. 3, 16b 22–23 (Boethius tr., 7.16–18): “Neque enim esse signum est rei vel non esse, nec si hoc ipsum ‘est’ purum dixeris.” (This text will be discussed in Chapter 6, § 5.)

<sup>83</sup> In *PH*<sup>2</sup> 12.7–12: “Idem quoque Theophrastus dat signum hunc esse Aristotelis librum: in omnibus enim, de quibus ipse disputat post magistrum, leviter ea tangit quae ab Aristotele dicta ante cognovit, alias vero diligentius res non ab Aristotele tractatas exsequitur. Hic quoque idem fecit.”

<sup>84</sup> In *PH*<sup>2</sup> 36.7–10: “Signum namque est vocum ipsarum significationem litteris contineri, quod ubi variae sunt litterae et non eadem quae scribuntur varias quoque voces esse necesse est. Haec Alexander.”

<sup>85</sup> Hardly any scholars now doubt the authenticity of *Peri hermeneias*, but it was questioned because of ‘the affections of the soul’ discussed in this work. Andronicus of

tus concisely describes Aristotle's claim and supplements it when further explanation is lacking. Theophrastus does the same for enunciation, another topic in *Peri hermeneias*, in his now lost work *On Affirmation and Negation*.<sup>86</sup> In text (β), Boethius introduces Alexander's exposition of 16a3–8. According to Alexander, the fact that written marks are different where spoken words are different is a 'sign' from which the fact that written marks signify spoken words is inferred. For instance, people in Athens use the Greek alphabet while people in Rome use the Roman alphabet; they speak different languages, Greek and Latin or Italian. As Boethius argues later,<sup>87</sup> this is an invalid inference. It is possible that people speak the same language but use different letters. A spoken word such as 'homo' can be written down in different letters, both as 'homo' in the Roman alphabet and 'ὄμο' in the Greek alphabet.

Since the compilation of the *Corpus Aristotelicum*, *Peri hermeneias* has been regarded as a logical work. In addition, Aristotelian commentators hold that *Peri hermeneias* deals with propositions composed of words while *Categories* deals with single words and *Analytics* deals with syllogisms composed of propositions.<sup>88</sup> If Boethius had used 'signa' rather than 'notae,' readers could have taken 'spoken words' (*ea quae sunt in voce*), the very things that would be called 'signa,' as propositions that make up syllogisms.<sup>89</sup> But the 'spoken words' which signify thoughts

---

Rhodes is reported to have questioned its authenticity because 'the affections of the soul' in this work are thoughts whereas 'affections' (*passiones*) in Aristotle's other works are emotions (Boethius, *In PH*<sup>2</sup> 11.24–30; Alexander, *In PrA* 160.32; Ammonius, *In PH* 5.28–6.14). Following Theophrastus and Alexander, Boethius holds that the style and the topics of this work prove its authenticity. Specifically, he points out the continuity between *Peri hermeneias* and *Prior Analytics* in that the former discusses simple propositions while the latter deals with simple syllogisms (*In PH*<sup>2</sup> 12.21–25). In defending the identification of thoughts with 'the affections,' which Andronicus considers problematic, Boethius does not furnish any textual support from Aristotle's works, although contemporary scholars (Whitaker 1996: 15; Charles 2000: 82) mention *DA* III, ch. 4, 429a13–18. He says that thoughts are rightly called 'affections' insofar as thoughts are collected for some utility. He thinks that utility stems from some kind of passivity. Compared with God, who enjoys perfect self-sufficiency and is free of passivity, everything in human beings retains some passive character (*In PH*<sup>2</sup> 12.28–13.9; cf. For the non-passivity of God, see *De trinitate* § 4, 177.267–268).

<sup>86</sup> *In PH*<sup>2</sup> 12.5–6.

<sup>87</sup> *In PH*<sup>2</sup> 22.22–27.

<sup>88</sup> E.g., Ammonius, *In PH* 4.18–24; Simplicius, *In Cat.* 15.13–22.

<sup>89</sup> In fact, David Sedley (1996: 89–97) claims that the 'spoken words' refer only to perfect sentences, not to words spoken alone. It is difficult, however, to support this

should include nouns and verbs standing alone as well as propositions. Boethius holds that propositions ('simple propositions' to be accurate) are the subject of *Peri hermeneias*, but he understands that the signs (σημεῖα) discussed in this work are not exclusively propositions but include nouns and verbs by themselves.<sup>90</sup> It is possible that he avoids 'signa' in 16a6 lest readers misunderstand the content Aristotle discusses with the term 'σημεῖα.' He uses 'signa' in several other contexts where 'signa' are obviously not propositions.<sup>91</sup> The association between 'signs' (σημεῖα/signa) and propositions is widely acknowledged in ancient traditions of logic, not only among the Peripatetics but also the Stoics.<sup>92</sup>

### 3.3. 'Nota' in Cicero's Topics

Why, then, did Boethius choose 'nota'? To answer this question, Magee rightly draws our attention to 'nota' in (a) Cicero's *Topics* and in (b) Boethius' commentary on it.<sup>93</sup>

(a) Many [arguments] are also derived from 'notatio.' This is when an argument is elicited from the force (*vis*) of a word. The Greek call this 'ἔτυμολογία' that is in word-for-word [translation] 'veriloquium.' But to avoid using a new word that is not very suitable, we call this kind 'notatio,' because words are 'notae' of things. Aristotle calls this 'σύμβολον,' which is 'nota' in Latin.<sup>94</sup>

---

interpretation. Aristotle says that he is going to define what a noun, a verb, a negation, an affirmation, a statement and a sentence are (*PH*, ch. 1, 16a1–2). It is natural to think that the 'spoken words' in question (16a3) would include everything that he said he would define. Magee's interpretation of Aristotle is subject to a similar sort of critique. He (Magee 1989: 48) proposes to read 'πρώτων' (16a6) as 'πρώτων νοημάτων' (of the first thoughts), rejecting the traditional (that is Boethius') interpretation that the word is understood adverbially as 'firstly' or 'principally.' 'The first thought' is Aristotle's notion in *De anima* (III, ch. 8, 432a12), which refers to 'an uncombined thought that lacks truth-values.' If Magee were right, the 'spoken words' in question would refer to single words, but not to perfect sentences. As Hermann Weidemann (2002: 145) convincingly argues, the structure of the text does not justify Magee's reading. Ebbesen (1991: 151) is also negative on his reading.

<sup>90</sup> In *PH*<sup>2</sup> 30.29–30 (this text is cited in note 6 of Chapter 4).

<sup>91</sup> See note 82 of this chapter.

<sup>92</sup> E.g., Sextus Empiricus, *Adv. math.* VIII 276 = SVF II 223 = LS 53T = FDS 529 (cited on p. 164). Baratin (1981: 262) claims that Augustine departed from the Stoics by calling a single word 'a sign.'

<sup>93</sup> Magee 1989: 55–56.

<sup>94</sup> Cicero, *Top.* § 35, 132.15–20: "Multa etiam ex notatione sumuntur. Ea est autem



(b) A 'nota' is that which signifies any thing. Hence, every name is a 'nota' because it makes known the thing of which it is predicated, and Aristotle named this 'σύμβολον'.<sup>95</sup>

Cicero translated Aristotle's 'σύμβολον' as 'nota' in *Topics*. Boethius surely noticed this while commenting on the work. Boethius' two commentaries on *Peri hermeneias* and his translation of the work are dated earlier than his commentary on Cicero's *Topics*.<sup>96</sup> By the time he translated *Peri hermeneias*, however, Boethius probably had read Cicero's *Topics*.<sup>97</sup> He could also have known of Cicero's translation indirectly through Quintilian's *Institutions of Oratory*.<sup>98</sup>

### 3.4. 'Nota' Derived from 'Noscere'

Boethius, however, did not have to follow Cicero's translation or any other predecessor's; indeed, he does not always adopt Cicero's translation of Greek philosophical words. For instance, Cicero translates 'φαντασία' as 'visum',<sup>99</sup> but Boethius renders it as 'imaginatio'.<sup>100</sup> Hence, I assume that Boethius chooses 'nota' because he believes it to be a good translation. Why does Boethius believe that 'nota' fits in? Before beginning a philosophical survey of the word, let's consider the implication of its etymology in order to answer this question.

The noun 'nota' is derived from the verb 'noscere,' meaning 'to know.' In the sentence of his commentary on Cicero's *Topics* cited above (b), Boethius himself associates 'nota' with the perfect participles of the verb 'noscere,' i.e., 'notus, nota, notum.' In its basic meaning, then, a 'nota'

---

cum ex vi nominis argumentum elicitur; quam Graeci ἐτυμολογίαν appellant, id est verbum ex verbo veriloquium; nos autem novitatem verbi non satis apti fugientes genus hoc notationem appellamus, quia sunt verba rerum notae. Itaque hoc quidem Aristoteles σύμβολον appellat, quod Latine est nota."

<sup>95</sup> Boethius, *In Cic. Top.* 336.18–20 = 1111b: "Nota vero est, quae rem quamque designat. Quo fit, ut omne nomen nota sit, idcirco, quod notam facit rem, de qua praedicatur: id Aristoteles σύμβολον nominavit."

<sup>96</sup> See Chart 2, p. xix.

<sup>97</sup> He quotes from Cicero's *Topics* in his second commentary on *Isagoge* (*In Isag.*<sup>2</sup> 139.20–140.8), a work dated earlier than his two commentaries on *Peri hermeneias*.

<sup>98</sup> Quintilianus, *Inst.* I, c.6 [28]: "Etymologia, quae verborum originem inquirat, a Cicerone dicta est notatio, quia nomen eius apud Aristotelen inuenitur σύμβολον, quod est 'nota'."

<sup>99</sup> Cicero, *De fato* XIX [43] 86.30; *Acad.* I, xi [40], II, vi [18] ('visum').

<sup>100</sup> Boethius, *In PH*<sup>2</sup> 28.1. In his early work (*In Isag.*<sup>1</sup> 25.10–11), he renders it as 'visum.' Augustine's *De trinitate* probably influenced Boethius' later choice of the word.

is a sign that functions only through intellectual activity.<sup>101</sup> We can observe this characteristic of ‘*nota*’ typically in the meaning of letters or ideograms. Some non-rational animals make sounds that inform others of an approaching danger or a place of food. Those sounds are not called ‘*notae*’ because they are instinctual, not intellectual.

### 3.5. ‘*Nota*’ as a Conventional Token

Moreover, ‘*notae*’ are often used to denote some kinds of conventional signs. In ordinary Latin, for instance, written marks are ‘*notae*.’ Text (i) is quoted from Cicero’s *Republic*, and text (ii) is from Boethius’ *Consolation of Philosophy*.

(i) Similarly, the mind also marked and represented all the sounds of the voice, which seemed innumerable, by a few characters (*notae*) which it invented; with these characters, conversations could be carried on with persons at a distance, and indications of our wishes (*voluntates*) and records of past events could be set down.<sup>102</sup>

(ii) Figures of letters are sometimes impressed on a smooth and blank page [of a wax-tablet] with a quick *stylus* [i.e., a pen for writing in a wax-tablet] where there were no written marks (*notae*).<sup>103</sup>

Marks on a wine cask that indicate particular brands or qualities of the wine are also ‘*notae*.’ Horace says in *Odes*,

(iii) Remember to keep your mind level when things are difficult and to keep it tempered from excessive joy when things go well. Dellius, who will die, whether you spend every minute [of your life] in gloom or bless yourself all the long days of festivals lying in a secluded meadow with a Falernian mark (*nota*) from the back of your cellar.<sup>104</sup>

<sup>101</sup> Cf. Magee 1989: 56–57 (cited on p. 44).

<sup>102</sup> Cicero, *De re publica* III, ii [3]: “A simili etiam mente, vocis qui videbantur infiniti soni, paucis notis inventis sunt omnes signati et expressi, quibus et colloquia cum absentibus et indicia voluntatum et monumenta rerum praeteritarum tenerentur.” I adopt Clinton Keyes’s translation with some alterations. A similar example: Virgil, *Aen.* III, 441–446.

<sup>103</sup> *CP* V, m. iv, 151.6–9: “[Q]uondam cecleri stilo mos est aequare paginae quae nullas habeat notas pressas figere litteras.”

<sup>104</sup> *Carminum* II, 3.1–8: “Aequam memento rebus in arduis servare mentem, non secus in bonis ab insolenti temperatam laetitia, moriture Delli, seu maestus omni tempore vixeris, seu te in remoto gramine per dies festos reclinatum bearis interiore nota Falerni.”

Stamps on the coin are 'notae', too. In *Lives of the Emperors*, Suetonius talks about the life of Augustus:

(iv) Augustus had soon such faith in his destiny, that he made his horoscope public and issued a silver coin stamped with the mark (*nota*) of the constellation Capricorn, under which he was born.<sup>105</sup>

Just as with written characters, marks on wine casks and stamps on coins are signs established by convention.

As for 'nota' as a mark on a coin, we cannot find any example of its use in Boethius' works, but in an exposition of Aristotle's text (16a3–8), Boethius makes an insightful consideration about the nature of language in its comparison to a coin.<sup>106</sup> Disks of metal are 'coins' when they communicate value. Vocal sounds are 'nouns' and 'verbs' when they communicate meaning. Coins do not communicate value by being pieces of metal. Nouns and verbs do not communicate meaning by being vocal sounds. Value and meaning are imposed (*ponitur*) on the piece of metal and the vocal sounds and conventional agreement is presupposed.<sup>107</sup> Otherwise, people could use any piece of metal as money and any vocal sound as a word. A piece of metal impressed with a mark of George Washington comes to have the value of twenty-five cents because the federal government of the United States, under the statutes defining legal tender, mints the coin, and the American people agree as to its value.

Thus Boethius sees similarities between words (nouns and verbs) and coins. This resemblance likely extends to the correlation of 'nota' as 'a stamp on a coin' in ordinary Latin and 'nota' as 'a word (a noun or a

<sup>105</sup> *De vita* II: *Augustus*, c.94: "[T]antam mox fiduciam fati Augustus habuit, ut thema suum uulgauerit nummumque argenteum nota sideris Capricorni, quo natus est, percusserit." A similar use is in VI: *Nero*, c.25 of the same work.

<sup>106</sup> Ammonius makes a similar comparison (*In PH* 22.27–23.2; for this text, see note 61 of Chapter 4).

<sup>107</sup> As for the relationship between coin (*nummus*) and value (*pretium*), Boethius may have Augustine's discussion in mind: "Nummus autem cum dicitur pretium relatiue dicitur, nec tamen mutatus est cum esse coepit pretium neque cum dicitur pignus et si qua similia. Si ergo nummus potest nulla sui mutatione totiens dici relatiue ut neque cum incipit dici neque cum desinit aliquid in eius natura uel forma qua nummus est mutationis fiat, quanto facilius de illa incommutabili dei substantia debemus accipere ut ita dicatur relatiue aliquid ad creaturam ut, quamuis temporaliter incipiat dici, non tamen ipsi substantiae dei accidisse intellegatur sed illi creaturae ad quam dicitur?" (Augustine, *De trinitate* V, 16 [17] 226.43–53; for an analysis of this text, see Rosier-Catach 2004a: 109–110).

verb)' in *Peri hermeneias*. A '*nota*' as a stamp on a coin is a particular shape that is imposed with value and is impressed on a particular matter. A '*nota*' as a word has a particular form that is imposed with meaning and is impressed on vocal sounds. In both cases, the imposition presupposes conventional agreement. Money, words and convention have been often associated with each other since ancient times.<sup>108</sup> Still now we say, "*coin* a word."

Moreover, Boethius characterizes '*nota*' as an artificial or a conventional sign:

- (i) It becomes a *nota* when a word (*vocabulum*) that was not used to signify (*designare*) anything by nature is given for the signification of a subject thing according to the decision (*secundum placitum*) of a name-giver (*ponens*).<sup>109</sup> 2 (ii) A '*nota*' is in the thing that it indicates by naming (*appellatio*).<sup>110</sup>

In the first text, Boethius says that a *nota* results from an act of a name-giver. In the second text, he suggests that a *nota* indicates something by an act of naming. The expression '*secundum placitum*' in the first text is Boethius' translation of 'κατὰ συνθήκην'.<sup>111</sup> He associates this expression with 'by will' (*secundum voluntatem*) as '*secundum placitum*

<sup>108</sup> Aristotle, *EN* V, ch. 5, 1133a30–31; Augustine, *De doc. christ.* II, xxv, 39 [100] 62.19–29; Hume, *Treatise* III, part 2, sec. 2, 490 (language-convention-money); Wittgenstein, *Philosophical Investigations* I, 120 (language-money). I learned some of these examples from Magee 1989: 39, n. 105.

<sup>109</sup> In *PH*<sup>2</sup> 59.29–31: "Tunc autem fit nota, cum secundum ponentis placitum vocabulum quod naturaliter nihil designabat ad subiectae rei significationem datur." Tisserand (2008: 117–119) says that '*vocabulum*' in Boethius' works stands for the lexical unity of a word while '*nomen*' stands for its semantic unity. For the difference between these two terms, he refers to the following texts: "[H]umanum solum genus exstitit, quod rebus nomina posset imponere. Unde factum est ut sigillatim omnia prosecutus hominis animus singulis vocabula rebus aptaret" (*In Cat.* 159a); "Vocabulum ergo nominis de pluribus nominibus praedicatur" (*De div.* 34.17–18= 886b). Even though there may be some difference in Boethius' usage of these two expressions, the difference is slight, and he may not differentiate between them. The same holds for Augustine's use of '*vocabulum*' (see note 48 of this chapter). Priscian, however, classifies '*vocabulum*' and '*appellatio*' as different sub-species of 'common name/noun' (*Inst.* I, 55.6–7). The technical use of '*vocabulum*' is already recorded by Quintilian (*Inst.* I, c.4 [1]).

<sup>110</sup> In *Cic. Top.* 296.22–23 = 1068a: "Nota etiam in illo est, quod appellatione signat [cf. Migne: significat]."

<sup>111</sup> Aristotle, *PH*, ch. 2, 16a28. See the Aristotle's text and Boethius' translation cited in note 16 of this chapter.

*voluntatemque*.<sup>112</sup> He uses this expression interchangeably with '*secundum positionem*' or '*positione*'.<sup>113</sup>

Since '*placitum*' is a past-participle of '*placeo*' (to please) and he mentions 'a name-giver' not 'name-givers,' some scholars claim that Boethius means by '*secundum placitum*' or '*ad placitum*,' 'as pleases some individual,' in short, 'arbitrarily'.<sup>114</sup> His 'coin-word' argument, however, suggests otherwise.<sup>115</sup> By '*placitum*,' he means 'agreeable' or 'acceptable' to people rather than 'pleasing' to some individual.<sup>116</sup> And when he mentions 'a name-giver' (*ponens*), he does not mean any individual whomever.<sup>117</sup> 'A name-giver' is an ideal person having highly regarded opinions, 'ἔνδοξα' in Aristotle's term.

Boethius has a good understanding of the conventionality of language and claims that spoken words as well as written words (*litterae*) are established by convention. I call this claim that words signify by convention 'Boethius' second semantic thesis' (BoST<sub>2</sub>). '*Nota*' can preserve the implication of a conventional sign, which is implied in the Greek word 'σύμβολον.' The preservation of conventionality is a good reason for translating 'σύμβολον' as '*nota*'.

<sup>112</sup> In *PH*<sup>2</sup> 56.17–18; In *PH*<sup>2</sup> 55.30 ('*ad ponentium placitum voluntatemque*'). There is no parallel expression in his first commentary and Ammonius' commentary on *Peri hermeneias*. It is now common understanding among scholars that there is no notion of will in ancient Greek philosophy previous to the rise of Rome. Boethius attempts to defend the freedom of will (*libertas voluntatis*) in *CP* V, pr. ii sqq. Neal Gilbert (1963: 33–34) says that we find three traditions concerning the will in Boethius' works: the Stoics, Neoplatonists and Augustine. It is interesting to assess Boethius' concept of will along with a recent reconsideration of Augustine's notion of will (see Byers 2006 and Frede 2011).

<sup>113</sup> In *PH*<sup>2</sup> 54.30–55.1: "Secundum placitum vero est, quod secundum quamdam positionem placitumque ponentis aptatur"; In *PH*<sup>2</sup> 59.6–7: "Sed omne nomen positione designat, idcirco dictum est secundum placitum." Ammonius says that the Greek counterparts 'κατὰ συνθήκην' and 'θέσει' are equivalent in *In PH* 30.31–32: "τῶν οὖν τοιούτων φωνῶν χωρίζει τὸ ὄνομα προστεθὲν τὸ κατὰ συνθήκην, ταῦτόν σημαῖνον τῷ θέσει."

<sup>114</sup> Engels 1963: 109; Arens 1984: 219.

<sup>115</sup> Cf. Ebbesen 1984: 384: "It was a moot question whether 'by convention' implies 'at random,' but most ancient and medieval philosophers thought not."

<sup>116</sup> Referring to Boethius' distinction between 'civil justice/good' and 'natural justice/good' (In *PH*<sup>2</sup> 42.2.4), Rosier-Catach (2004a: 60–61) claims that 'by imposition' (*positione*) means 'by institution' in Boethius' works. Boethius says that 'civil justice' and 'civil good' are by imposition. In this context, 'by imposition' means 'by institution of agreement among people in the city.'

<sup>117</sup> Cf. In Plato's *Cratylus* (388d6–389a4), it is said that not everyone is able to give a name as a name-giver (ὀνοματουργός).

## 3.6. 'Nota' with 'Similitudo'

For Boethius, 'nota' has another important implication. He says,

Aristotle's statement that "the nouns and the verbs themselves are similar to the thought without composition and division" [(16a13–15)] refers to (*designare*) what he has said already above, "what are in a vocal sound are *notae* of the affections of the soul" [(16a3–4)]. If they [what are in a vocal sound, i.e., nouns and verbs] are '*notae*' [of the affections of the soul, i.e., thoughts], just as written marks bear (*gerunt*) a likeness (*similitudo*) of vocal sounds (*voces*) in them, vocal sounds [bear a likeness] of thoughts [in them].<sup>118</sup>

Boethius sees the continuity in Aristotle's line of thinking in 16a3–4 and in 16a13–15:

Now vocal sounds are symbols (σύμβολα/*notae*) of affections in the soul and written marks are symbols (σύμβολα/*notae*) of vocal sounds. (16a3–4).<sup>119</sup>

Thus nouns and verbs by themselves—for instance 'man' or 'white' when nothing further is added—are like (ἔοικε) the thoughts that are without composition and division. (16a13–15).<sup>120</sup>

In 16a13–15, Aristotle claims that thoughts and spoken words are similar in function, saying that nouns and verbs without composition are like thoughts without composition. According to Boethius' exposition, Aristotle has already implied this in 16a3–4.

In taking this interpretation, Boethius assumes that a 'nota' involves a 'likeness.'

Written marks bear a likeness of spoken words in them if written marks are '*notae*' of spoken words. Similarly, spoken words bear a likeness of thoughts in them if spoken words are the '*notae*' of thoughts. Generally speaking, "If A is a *nota* of B, A bears a likeness of B in A." Indeed, many usages of 'nota' involve some sort of likeness between the

<sup>118</sup> In *PH*<sup>2</sup> 48.15–21: "Quod vero ait nomina ipsa et verba consimilia esse sine compositione vel divisione intellectui, illud designat, quod supra iam dixit, ea quae sunt in voce notas esse animae passionum. Quod si notae sunt, sicut litterae vocum in se similitudinem gerunt, ita voces intellectuum."

<sup>119</sup> Aristotle's Greek text and Boethius' Latin translation are cited on p. 43, the beginning of this chapter (§ 1).

<sup>120</sup> "τὰ μὲν οὖν ὀνόματα αὐτὰ καὶ τὰ ῥήματα ἔοικε τῷ ἄνευ συνθέσεως καὶ διαίρεσεως νοήματι, οἷον τὸ ἄνθρωπος ἢ λευκόν, ὅταν μὴ προσεθῇ τι." / 5.15–17: "Nomina igitur ipsa et verba consimilia sunt sine compositione vel divisione intellectui, ut 'homo' vel 'album', quando non additur aliquid."

mark (*nota*) and the thing that made the mark. Letters are '*notae (litterarum)*',<sup>121</sup> likenesses of the hand's movements. A stamp on a coin and a mark on a wine cask, which are '*notae*,' are likenesses of the original shapes, such as a coin-mold or a hot brand. A trace such as a footprint, which is also a '*nota*,'<sup>122</sup> retains a likeness of a foot or a shoe.

Boethius does not explain further about the nature of this 'likeness' in the second commentary, but in commenting on 16a11–13 in the first commentary, he says,

There is a sort of likeness (*quaedam similitudo*), he [Aristotle] says, between thoughts and spoken words (*voces*). Just as there are some simple things (*simplicia*) conceived by means of the reason (*ratio*) of the mind and established in the act of understanding (*intellegentia*) of the mind, in which neither truth nor falsity is found, so it is with spoken words. A simple thought, for instance, a thought of a man or a thought of a horse, possesses neither falsity nor truth. When I understand 'a man' simply, [that is] the substance itself, I possess nothing of the true or the false in thinking (*cogitatio*). If I have considered 'run' (*cursus*) in the thinking of the mind, the thinking itself is excluded from truth and falsity because it holds an intuition of a simple thing. When I have joined 'run' to 'man' and have made up something from these in my understanding (and if I express it in my voice, this shall be "a man runs"), from this composition or conjunction of the substance and the accident, such a thought results, where truth or falsity is able to exist. Hence, just as some simple things lacking the true or the false sometimes exist in a thought but it is necessary other times that either truth or falsity exist in a thought; so also is it in a spoken word. If a spoken word expresses a simple thought lacking the true or the false, the thought itself is also separated from truth and falsity. If I express a thought like this, which embraces the true or the false in itself, the vocal expression itself possesses the signification of the true or the false.<sup>123</sup>

<sup>121</sup> For '*notae litterarum*,' see Cicero, *Tusc.* I, xxv [62] and *De divinatione* II, xli [85]. For '*notae*,' see examples in Cicero's *Republic* (note 102 of this chapter) and Boethius' *Consolation* (note 103 of this chapter).

<sup>122</sup> See the example in Ovid's *Fasti* (note 70 of this chapter).

<sup>123</sup> In *PH*<sup>1</sup> 41.27–42.24 (single quotation marks added): "[S]imilitudo est, inquit, quaedam inter se intellectuum atque vocum: quemadmodum enim sunt quaedam simplicia quae ratione animi concipiuntur constituunturque intellegentia mentis, in quibus neque veritas ulla neque falsitas invenitur, ita quoque in vocibus est. Simplex enim intellectus, ut verbi gratia hominis vel equi, neque falsitatem ullam retinet neque veritatem. Cum enim intellego simpliciter hominem, substantiam ipsam, nihil veri vel falsi in cogitatione retineo. Quod si cursum rursus animi cogitatione perspexero, cogitatio ipsa, quoniam simplicis rei tenet intuitum, a veritate et falsitate seclusa est. Sed quando cursum et hominem iunxero et ex his aliquid intellegentia mea fecero (idque si voce proferam, huiusmodi erit 'homo currit'), tunc ex hac substantiae et accidentis compositione et coniunctione huiusmodi intellectus fit, in quo vel falsitas possit esse vel veritas. Ergo quemadmodum in intellectu sunt quaedam aliquotiens simplicia vero falsoque carentia,

A composition is first produced in the mind, and the same composition is then expressed in a vocal utterance. Once the thought of ‘man’ and that of ‘to run’ are composed in the mind, the composition can be expressed in an oral sentence “A man runs,” which is composed of a noun ‘man’ and a verb ‘to run.’ If the composition of the thoughts bears a truth-value, the same truth-value is found in the oral sentence, too.

From this explanation together with the context of *Peri hermeneias* (16a13–15), it is construed that Boethius means by ‘likeness’ a functional similarity, specifically the potential to form composites.

According to Boethius’ interpretation, Aristotle means to say in *Peri hermeneias* 16a3–4 that spoken words have a functional similarity with the affections of the soul (i.e., thoughts) and that written words have a functional similarity with spoken words. Among the three items, that is, spoken words, thoughts, and written words, Boethius sees thoughts as fundamental to the similarity. For a composition and a truth-value are first, in thoughts, second, in spoken words and presumably, third, in written words, since he says that letters are invented for signifying spoken words.<sup>124</sup>

I believe Boethius implies a functional similarity among written words, spoken words, and thoughts by his doctrine of three types of noun and three types of verb. He says,

Among the Peripatetics, there were said to be three [types] of speech: one written in letters, another uttered in a vocal sound, and a third put together in the soul. Now if there are three [types] of speech, the parts of speech are no doubt likewise threefold; for since the noun and the verb are principal parts of speech, verbs and nouns that are written and those that are spoken and those that are developed silently in the mind will be different.<sup>125</sup>

I am going to discuss different interpretations of this text in the next chapter. In my interpretation, the three types of noun and verb mean a functional similarity, not phonetic similarity, among written marks, spoken words and thoughts. As I said above, the functional similarity among written marks, spoken words and thoughts originates in thoughts. The noun-verb distinction in thoughts is, therefore, the foundation for the noun-verb distinctions in spoken words and written marks.

---

aliquotiens autem cum iam necesse est aut veritatem inesse intellectui aut falsitatem, sic est etiam in voce. Nam si simplicem intellectum et vero falsoque carentem vox proferat, ipsa quoque a veritate et falsitate relinquetur. Quod si huiusmodi proferat intellectum, qui in se verum falsumque contineat, ipsa quoque veri falsique retinet significationem.”

<sup>124</sup> In *PH*<sup>1</sup> 39.23–40.1; In *PH*<sup>2</sup> 21.5–7 (for the text, see note 93 of Chapter 3).

<sup>125</sup> In *PH*<sup>2</sup> 30.3–10. The Latin text is cited in notes 1 and 7 of Chapter 3.



Boethius holds that thoughts are the same for all, and therefore are natural.<sup>126</sup> The noun-verb distinction in thoughts is, then, also natural, being shared by all, whatever language they speak. The noun-verb distinction in spoken words, having its foundation in the operation of the human mind, is also natural.

A couple of texts that we have looked at in the preceding chapter support this interpretation. Boethius says that a vocal sound is divided into a noun or a verb insofar as the vocal sound signifies a thought.<sup>127</sup> Vocal sounds have a noun-verb distinction insofar as they signify thoughts, because the very thoughts signified have this distinction. In addition, he says that the ten categories of being are not expressed without a noun or a verb.<sup>128</sup> He would not claim that Aristotle's ten categories of being—substance, quantity, quality, relation, place, time, position, possession, action and passion—are conventional distinctions. These logical classifications are common to everyone no matter the language one speaks. Thus, every language should have at least two grammatical categories, i.e., the noun and the verb, to express the ten logical categories.

Spoken words are established by convention but not only by convention. Boethius compares speaking a language to dancing.<sup>129</sup> We can naturally move, but we have to learn how to dance, to move according to some techniques or certain conventional rules. We can naturally utter vocal sounds, but we have to learn how to speak a language, to utter vocal sounds according to certain conventional rules. He says that the abilities of naming things and of making vocal sounds are given to us by nature.<sup>130</sup> He does not further articulate the natural conditions for speaking a language, but there are two types of condition to be fulfilled: one physical and another mental. A speaker needs to have organs such as a windpipe and a tongue to produce articulated vocal sounds.<sup>131</sup> He also needs to have mental abilities to control these vocal sounds, to conceive thoughts, and moreover, to form sentences of nouns and verbs by combining and dividing thoughts.

<sup>126</sup> *In PH*<sup>2</sup> 23.1–3.

<sup>127</sup> *In PH*<sup>2</sup> 7.12–18 (in text (i) on pp. 22–23).

<sup>128</sup> *In PH*<sup>2</sup> 7.29–31.

<sup>129</sup> *In PH*<sup>2</sup> 94.22–28. Greek commentators on Plato and Aristotle give similar explanations: Proclus, *In Cratyl.* 16.30–17.1; Ammonius, *In PH* 62.21–63.26; Alexander, *Quaestiones* III, 11, 100.25–101.8 (without dance comparison; Cf. Todd 1976b). Aristotle contrasts dance, a kind of movement which follows rules, with simple body movement in *Met.* VII, ch. 8, 1034a14–16.

<sup>130</sup> *In PH*<sup>2</sup> 94.14–16; *In PH*<sup>2</sup> 94.26–28.

<sup>131</sup> Cf. *In PH*<sup>2</sup> 4.18–20 (see the Introduction § 4).

## 4. Conclusion

In *Peri hermeneias*, ‘symbol’ (σύμβολον) is a kind of ‘sign’ (σημείον). In the context of 16a3–8, it is justifiable to translate these two words as one word that retains the implications of ‘symbol’. The analysis of the relevant uses of ‘symbol’ sheds light on two significant implications of ‘symbol’: (i) the conventionality of the sign and (ii) the parallel between the sign and the significate.

Boethius has reasons for avoiding ‘*symbolum*’ and ‘*signum*’ in his translation.<sup>132</sup> These words are associated with technical meanings irrelevant to the context of *Peri hermeneias*. In spiritual tradition, either pagan or Christian, ‘*symbolum*’ is often an esoteric or religious code. In the Aristotelian tradition of logic and rhetoric, ‘*signum*’ is an actual or a potential premise for syllogisms.<sup>133</sup>

Cicero proposes the word ‘*nota*’ as a Latin translation of ‘σύμβολον’. The Latin word can carry the two important implications (i) (ii) of the Greek expression. The word ‘*notae*’ often stands for conventional tokens such as written characters, marks on wine casks or stamps on coins. In these ‘*notae*’, we find ‘likenesses’ or parallels between the marks and what impress them.

In its use as a conventional token, ‘*nota*’ conveys a conventional relation between spoken words and thoughts, or between spoken words and things that those spoken words signify by the mediation of thoughts. The same thing and the same thought take different spoken expressions according to different conventions. The Greek call a horse ‘*hippos*’ while the Romans call it ‘*equus*’.<sup>134</sup> By its implication of likeness, ‘*nota*’ involves a non-conventional relation between thoughts and spoken words.<sup>135</sup> Spo-

<sup>132</sup> Jean Oesterle and Andrew Smith seem to have similar thoughts: “The Greek word σύμβολον means ‘token’ and the Latin word *nota* used by William of Moerbeke is an exact translation of this. ‘Sign’ and ‘symbol’ are later meanings which have become technical and therefore less directly convey what Aristotle intends here” (Oesterle 1962: 23, n. 10); “Boethius has chosen deliberately to ignore the difference, perhaps to avoid confusion” (Smith 2010: 151, n. 20). Oesterle should have said ‘Boethius’ instead of ‘William of Moerbeke.’ She wrongly claims that Moerbeke translates ‘σύμβολον’ as ‘*nota*’ because she did not have access to Minio-Paluello’s edition of Moerbeke’s Latin translation (compiled as AL II-2), which was published in 1965.

<sup>133</sup> Boethius perhaps did not have direct access to Aristotle’s *Rhetoric*. We cannot find any quotation from *Rhetoric* in Boethius’ works.

<sup>134</sup> In *PH*<sup>2</sup> 21.18–24. The text is cited and translated on page 81 (text (d)).

<sup>135</sup> In the recognition of the non-conventional aspect of ‘σύμβολον’, Boethius differs from Ammonius. Ammonius sees only the conventionality of the expression in *In*

ken words have a similar function to that of thoughts. Spoken words have the distinction between noun and verb in virtue of the fact that thoughts virtually have the same distinction.<sup>136</sup> In order to express the thought “the horse runs” in any language, we cannot but use a noun and a verb (or a verb-part) although a language may assign any phonemes to each.<sup>137</sup> I say ‘a verb-part,’ because in some languages, more than two grammatical elements, for instance, a noun and a preposition, may play the role of what we call ‘a verb.’

Boethius rightly understands what Aristotle intends to communicate by the word ‘σύμβολον.’ He develops his interpretation of Aristotle with ‘*nota*,’ a word that could convey the natural and conventional features of language.<sup>138</sup>

Thus I hold that Boethius’ interpretation of Aristotle at 16a3–8 is rather accurate. Nevertheless I do not deny that his interpretation and translation contain some elements that Aristotle probably did not intend to communicate. Many uses of ‘*nota*’ imply a likeness-relation, and the relation presupposes a causal relation between that which forms a *nota* (e.g., a mold) and a *nota* itself (e.g., a stamp on a coin). Sometimes that which forms a *nota* is also a significate of the *nota*. For instance, a foot makes a footprint (‘*nota pedum*’), which is a sign of feet. An effect does

---

PH 20.6–8 (italics added): “τὸ δὲ γε σύμβολον ἥτοι σημεῖον (ἀμφοτέρως γὰρ αὐτὸ ὁ φιλόσοφος ὀνομάζει) τὸ ὅλον ἐφ’ ἡμῖν ἔχει, ἅτε καὶ ἐκ μόνης ὑφιστάμενον τῆς ἡμετέρας ἐπινοίας.”

<sup>136</sup> I will discuss the meaning of the qualification ‘virtually’ in Chapter 3, § 3.4.

<sup>137</sup> A famous linguist, Edward Sapir, after studying many exotic languages, holds this view: “There must be something to talk about and something must be said about this subject of discourse once it is selected. This distinction is of such fundamental importance that the vast majority of languages have emphasized it by creating some sort of formal barrier between the two terms of the proposition. The subject of discourse is a noun. As the most common subject of discourse is either a person or a thing, the noun clusters about concrete concepts of that order. As the thing predicated of a subject is generally an activity in the widest sense of that word, a passage from one moment of existence to another, the form which has been set aside for the business of predicating, in other words, the verb, clusters about concepts of activity. No language wholly fails to distinguish noun and verb, though in particular cases the nature of the distinction may be an elusive one” (Sapir 1921: 126).

<sup>138</sup> Cf. Gellius, *Noctes atticae* X, iv, [2–3], 308.3–4: “Quaeri enim solitum apud philosophos, φύσει τὰ ὀνόματα sint ἢ θέσει.” The nature *vs.* convention debate on language traces its origin back to Plato’s *Cratylus*. For excerpts of relevant texts in English translation, see Sorabji 2005: 213–219. Traditionally and typically, people understand Aristotle to be on the side of the conventionalists. Ancient Greek commentators on Aristotle and Plato try to show naturalism and conventionalism to be compatible. For the cases of Ammonius and Proclus, see Van Den Berg 2004.

not exist without a cause. Hence, that which forms a sign is causally and naturally prior to a sign itself. In fact, Boethius says that spoken words bear a likeness to thoughts in them because spoken words are '*notae*' of thoughts. By this statement, he suggests that thoughts are causally and naturally prior to spoken words. On the other hand, a symbol-relation does not necessarily imply a causal relation or a prior-posterior relation. A green light can exist without permission to cross the road. Permission to cross the road can exist without a green traffic light. The symbol-relation—a parallel-relation between thoughts and spoken words—does not claim that thoughts are prior to spoken words causally or naturally. Spoken words may be prior to thoughts no less than thoughts may be prior to thoughts. It is equally possible that neither is prior to the other. If my guess above is right, Boethius' choice of '*nota*' shows a stronger 'psychological orientation' of his semantics than Magee claims it does. Not only does the expression '*nota*' presuppose the thesis that words immediately signify thoughts and mediately things (BoST<sub>1</sub>)—in other words, the priority of thoughts over things to words—it also involves the priority of thoughts to words, that is, the idea that words do not exist without thoughts.

In the preceding chapter, we discussed how spoken words immediately signify thoughts and things by the mediation of thoughts. In this chapter, we have seen that this signification is partly conventional, and I proposed that it is also partly natural and that the doctrine of three types of speech is understood along with this interpretation. In addition, I suggested that the expression '*notae* of thoughts' implies the causal priority of thoughts to spoken words. In the next chapter, I will first make an argument to support my interpretation of the three types of speech. Then I will investigate how spoken words come to signify things by the mediation of thoughts and confirm the causal priority of thoughts to spoken words.

## CHAPTER THREE

### THREE TYPES OF SPEECH

#### 1. Introduction

Around the end of the previous chapter, I suggested that Boethius' choice of the word '*nota*' for 'σύμβολον' may reflect his understanding of the relationship between thoughts and spoken words. Through the discussion in this chapter, I will reveal Boethius' standpoint on this relationship. In essence, he argues that there is a functional similarity between thoughts and words in addition to their conventional relationship, and furthermore, that thoughts are naturally and causally prior to spoken words.

In the second commentary on *Peri hermeneias*, Boethius insists that there are three types of speech (*oratio*), one written, another spoken, a third mental:

(a) Among the Peripatetics, there were said to be three [types] of speech: one written in letters, another uttered in a vocal sound, and a third put together in the mind.<sup>1</sup>

As is seen above, Boethius introduces the doctrine of three types of speech as the Peripatetics' opinion and endorses it with the expression 'very rightly' (*rectissime*).<sup>2</sup> He specifically mentions Porphyry as an advocate of this doctrine.<sup>3</sup> Aristotle does not explicitly mention

---

<sup>1</sup> In *PH*<sup>2</sup> 30.3–5: "Dictum est tres esse apud Peripateticos orationes, unam quae litteris scriberetur, aliam quae proferretur in voce, tertiam quae coniungeretur in animo." Cf. *In Cat.* 204a–b.

<sup>2</sup> In *PH*<sup>2</sup> 29.17. Ammonius holds the idea of three types of speech in *In PH* 22.12–15. Plato, the Stoics and Neoplatonists also hold the idea of mental speech. For examples, Plato, *Theatetus* 189d–190a, *Philebus* 38c–e and *Sophist* 263e–264b; Plotinus, *Enneades* I 2, 3.27–30 (for the text, see n. 65) and V 1, 3.7–8; SVF II 135 = FDS 528, 223; Sextus Empiricus, *Adv. math.* VIII 275 = SVF II 223 = FDS 1031. We can find translations of some relevant texts in Sorabji 2005: 7(b), 211–213. For the development of mental speech before and after Boethius, see Panaccio 1999. Especially for Ockham's mental speech, see Lenz 2003. For various theories of mental speech in the Middle Ages, see Biard 2009.

<sup>3</sup> In *PH*<sup>2</sup> 36.10–14. Porphyry probably claims this in his lost commentary on *Peri hermeneias*. In Porphyry's remaining works (*In Cat.* 64.28–30; 101.26–28; *De abstinentia*

‘mental speech’ in *Peri hermeneias*,<sup>4</sup> but he proposes ‘internal speech’ distinct from ‘external speech’ in *Posterior Analytics*:

Demonstrations are not addressed to external speech but rather to speech in the soul (τὸν [λόγον] ἐν τῇ ψυχῇ) since neither are syllogisms. For you can always object to external speech, but not always to internal speech (τὸν ἔσω λόγον).<sup>5</sup>

If there are three types of speech, Boethius continues, there are three types of noun and verb.<sup>6</sup>

(b) Now if there are three [types] of speech, the parts of speech are no doubt likewise threefold; for since the verb and the noun are principal parts of speech, verbs and nouns that are written and those that are spoken and those that are developed silently in the mind will be different.<sup>7</sup>

Boethius seems to call the third type of speech, which we call mental speech, ‘the speech of the mind and the intellect’ (*animi atque intellectus oratio*) or ‘the thinkable speech’ (*cogitabilis oratio*).<sup>8</sup> These expressions as well as his remarks on ‘nouns and verbs in the mind’ may make us associate Boethius’ mental speech with the idea of the ‘language of thought.’ Indeed, John Marenbon reports in his recent book on Boethius, “Boethius is usually taken as an important exponent of the idea of the language of thought.”<sup>9</sup> As an example of such a presentation of Boethius, Marenbon refers to Norman Kretzmann’s treatment of Boethius’ mental speech in his article “History of Semantics.”<sup>10</sup>

The fundamental idea of the language of thought (LOT) is, to put it very simply, that we think in a way similar to how we speak sentences in a language. According to Jerry Fodor, the most prominent contemporary

---

III, 3, 1), we find the distinction between outer and inner speech (λόγος προφορικός/λόγος ἐνδιάθετος).

<sup>4</sup> The notion of mental speech is implied in *PH*, ch. 14, 23a32–37 and 24b1–4 (for the text, see n. 20 of Chapter 2).

<sup>5</sup> *PaA* I, ch. 10, 76b24–27: “οὐ γὰρ πρὸς τὸν ἔσω λόγον ἢ ἀπόδειξις, ἀλλὰ πρὸς τὸν ἐν τῇ ψυχῇ, ἐπεὶ οὐδὲ συλλογισμός. ἀεὶ γὰρ ἔστιν ἐνοτῆναι πρὸς τὸν ἔσω λόγον, ἀλλὰ πρὸς τὸν ἔσω λόγον οὐκ αἰεὶ.”

<sup>6</sup> Ammonius holds this idea in *In PH* 23.12–15.

<sup>7</sup> *In PH*<sup>2</sup> 30.6–10: “Quod si tres orationes sunt, partes quoque orationis esse triplices nulla dubitatio est. Quare quoniam verbum et nomen principaliter orationis partes sunt, erunt alia verba et nomina quae scribantur, alia quae dicantur, alia quae tacita mente tractentur.”

<sup>8</sup> *In PH*<sup>2</sup> 24.24 (in the text cited in note 100 of this chapter); *In PH*<sup>2</sup> 44.26.

<sup>9</sup> Marenbon 2003: 36.

<sup>10</sup> Kretzmann 1967. This article is the only reference given by Marenbon. Kretzmann does not use the expression ‘the language of thought.’

exponent of this concept, LOT is a universal mental language having its own semantic and syntactic properties; any sentence in any natural language is considered to be a translation of a sentence in LOT.<sup>11</sup>

Having these features of LOT in mind, I will investigate Boethius' doctrine of three types of speech in this chapter. The starting point, once again, will be provided by Kretzmann's questions about this doctrine.

## 2. Kretzmann's Questions

About the above quoted passages (a) and (b) of Boethius' second commentary on *Peri hermeneias*, Kretzmann proposes the following questions:

- (i) Are there two completely different nouns and verbs, one for writing and one for speech? (ii) And is this mental discourse nothing more than silently running over a sentence in Latin or English, or is it a nonverbal operation, reminiscent of Augustine's 'inward locution'?<sup>12</sup>

I understand that Kretzmann's first question is whether there is nothing common between written and spoken speech: the relationship between them is determined only by conventional rules of encoding and decoding. For instance, when parents and their son set up the code that "cherry-blossoms bloom" in a telegram means "I passed the exam," the written noun 'cherry-blossoms' and the written verb 'bloom' only have conventional relationships with spoken nouns 'I' and 'the exam' and spoken verb 'passed.' Setting aside the first question for later, I'd like to focus on the second question concerning mental speech. Kretzmann provides his own analysis of the question:

The fact that mental discourse is said to have nouns and verbs of its own suggests the former view, if either; but since Aristotle had maintained that the mental modifications were the same for all (regardless of their native tongue), and since Boethius offers this doctrine of three discourses in explanation of Aristotle's account, there is some basis for the second view as well.<sup>13</sup>

Kretzmann's own analysis tells us that his second question is, in short, whether mental speech occurs in a particular natural language or not.

<sup>11</sup> For the details about Fodor's LOT, see Fodor 1975, 1987, 1998 and 2008. For an introduction to Fodor's project, see Cain 2002.

<sup>12</sup> Kretzmann 1967: 367b (Numbers (i) and (ii) inserted).

<sup>13</sup> Ibid.

He believes that Boethius' commentary is open to both interpretations. Boethius endorses mental speech as an explanation of the beginning of Aristotle's *Peri hermeneias* in the same text I discussed in the previous chapter. Below is my translation, which slightly differs from Ackrill's:

Now the items in a vocal sound are tokens (σύμβολα) of affections in the soul, and written marks tokens of the items in a vocal sound. And just as written marks are not the same for all men, neither are vocal sounds. But what these are in the first place signs of—affections of the soul—are the same for all; and what these affections are likenesses of—things—are also the same.<sup>14</sup>

Kretzmann reasonably suggests that the fact that Boethius comments on this text supports the second view: that mental speech does not belong to any particular language. Although it is not explicitly stated, the three types of speech should correspond to 'written marks' (γράμματα), 'vocal sounds' (φωναί), and 'affections of the soul' (παθήματα τῆς ψυχῆς). As for the 'affections of the soul,' Aristotle explicitly claims them to be the same for all. Kretzmann also associates the second view with Augustine's 'inward locution,' an idea of mental speech proposed in *On the Trinity*.<sup>15</sup> Augustine identifies 'inward locution' (*locutio interior*) with thoughts (*cogitationes*).<sup>16</sup> A word (*verbum*) in an inward locution belongs to none of the languages of the nations.<sup>17</sup> "Neither is it uttered in sound nor thought of in the likeness of sound which necessarily belongs to a determinate language."<sup>18</sup> And "[the word] precedes all the signs that signify it."<sup>19</sup>

In addition to the doctrine of three-types of speech, Boethius endorses the noun-verb distinction in mental speech. Kretzmann, however, believes that there is a sufficient reason to raise doubt about the second, i.e.,

<sup>14</sup> *PH*, ch. 1, 16a3–8. Aristotle's Greek text and Boethius' Latin translation are cited on page 43.

<sup>15</sup> Boethius himself never mentions Augustine for the doctrine, but later medieval thinkers often mention Augustine in their doctrines of mental speech. For instance, William Ockham says in *SL* I, c.1, 7.21–25: "Unde isti termini concepti et propositiones ex eis compositae sunt illa verba mentalia quae beatus Augustinus, XV *De Trinitate*, dicit nullius esse linguae, quia tantum in mente manent et exterius proferri non possunt, quamvis voces tamquam signa subordinata eis pronuntientur exterius."

<sup>16</sup> *De trinitate* XV, 10 [18] 485.58.

<sup>17</sup> *De trinitate* XV, 10 [19] 485.66–68: "[H]oc est enim quod ad nullam pertinet linguam, earum scilicet quae linguae appellantur gentium quarum nostra latina est."

<sup>18</sup> *De trinitate* XV, 11 [20] 488.42–44: "[Q]uod neque prolativum est in sono neque cogitativum in similitudine soni quod alicuius linguae esse necesse sit."

<sup>19</sup> *De trinitate* XV 11 [20] 488.44–45: "[Q]uod omnia quibus significatur signa praecedit."



the translanguistic view of mental speech, and to consider the possibility of the first view: that mental speech belongs to a particular group of natural languages. Kretzmann's hidden assumption for this inference is that the noun-verb distinction is, strictly speaking, found only in such a group.

First, I will pursue the question of whether Boethius' mental speech belongs to a particular group of natural languages.

### 3. *The Answer to Kretzmann's Second Question*

#### 3.1. *Universal Mental Speech in Boethius' Texts*

In reading through Boethius' second commentary around the above passages (a) and (b), the answer to this question comes to us easily:

(c) Of these four, Aristotle says, the two are by nature, [namely] things and conceptions of the mind, i.e., the speech that is going on in thoughts, because they are identical and unchangeable for all; the [other] two, namely verbs, nouns and written words (*litterae*), are established not by nature (*naturaliter*) but by stipulation (*positione*). He does not say that these two are fixed by nature because (as is demonstrated above) not all peoples use the same vocal sounds or the same letters (*elementa*).<sup>20</sup>

(d) For, if the Roman, the Greek, and the barbarian see a horse at the same time, they also have the same thought of it, that "it is a horse"; the same thing is subjected to them, and the same thought is conceived from the thing itself. But the Greek calls a horse differently [from the Roman]; there is a different spoken word (*vox*) in the Roman's signifying (*significatio*) the horse, and the barbarian differs from both of them [i.e., the Greek and the Roman] in signifying (*designatio*) the horse.<sup>21</sup>

<sup>20</sup> *In PH*<sup>2</sup> 24.27–25.5: "Ex quibus quattuor duas quidem Aristoteles esse naturaliter dicit, res et animi conceptiones, id est eam quae fit in intellectibus orationem, idcirco quod apud omnes eadem atque inmutabiles sint; duas uero non naturaliter sed positione constitui, quae sunt scilicet verba nomina et litterae, quas idcirco naturaliter fixas esse non dicit, quod (ut supra demonstratum est) non eisdem vocibus omnes aut isdem utantur elementis." There are parallel statements in *In PH*<sup>1</sup> 37.22–38.14 and in Ammonius, *In PH* 24.19–21. As he does here and in *In PH*<sup>2</sup> 20.26–21.1 (cited in note 69 of this chapter), Boethius sometimes uses '*litterae*' and '*elementa*' interchangeably. But strictly speaking, '*litterae*' and '*elementa*' are different (*In PH*<sup>2</sup> 23.16–22): '*litterae*' are inscriptions of syllables (e.g., 'a') whereas '*elementa*' are the sounds to be inscribed (e.g., the sound 'e'). Ammonius (*In PH* 23.20–22) makes a similar distinction between 'γράμμα' and 'στοιχείον'.

<sup>21</sup> *In PH*<sup>2</sup> 21.18–24: "Nam cum Romanus, Graecus ac barbarus simul videant equum, habent quoque de eo eundem intellectum quod equus sit et apud eos eadem res subiecta

Both texts (c) and (d) reveal ‘Boethius’ second semantic thesis’ (BoST<sub>2</sub>)—words, either spoken or written, signify by convention. As we have seen in the beginning of *Peri hermeneias* (16a3–8), Aristotle concisely discusses the relationship among written words, spoken words, affections of the soul, and things. As is found in text (c), Boethius divides these four items into two groups: (i) Words, either spoken or written, are established by convention and are not identical for all. (ii) Things and the affections of the soul, which he identifies with thoughts or concepts (*conceptiones*),<sup>22</sup> are established by nature and are identical for all. ‘The speech of the mind and the intellect’<sup>23</sup> belongs to the latter group.

Mental speech, i.e., the speech of the intellect (*intellectus*), consists of thoughts (*intellectus*) or concepts (*conceptiones*).<sup>24</sup> In text (d), Boethius says that the thought that “it is a horse” is the same for the Greeks, the Romans and the barbarians despite the fact that they utter different vocal sounds in signifying the same thing. The situation where the Romans conceive “it is a horse” while the barbarians are thinking “it is a dog” never occurs.<sup>25</sup> These comments in texts (c) and (d) clearly show that mental speech is not confined to any particular natural language.

Linguists Edward Sapir and Benjamin Whorf proposed the thesis known as the ‘Sapir-Whorf hypothesis,’ which states that languages largely determine our thoughts, how and what we think.<sup>26</sup> They came to this conclusion as a result of their studies of different languages, among which Whorf’s studies of the Hopi’s language are most famous. Whorf reports that the Hopi’s language is seen to contain no words, grammatical forms,

---

est, idem a re ipsa concipitur intellectus, sed Graecus aliter equum vocat, alia quoque vox in equi significatione Romana est et barbarus ab utroque in equi designificatione dissensit.”

<sup>22</sup> For his discussion for this identification, see Chapter 1, § 4.1.

<sup>23</sup> In *PH*<sup>2</sup> 24.24 (in the text cited in note 100 of this chapter).

<sup>24</sup> Boethius uses sometimes ‘*conceptio*’ but the meaning of *conceptio* is no more than ‘what is conceived.’ There is virtually no difference between the *conceptio* of the mind and the *intellectus* as a mental content. For instance, Boethius describes, “[Aristoteles esse naturaliter dicit] animi conceptiones, id est eam quae fit in intellectibus orationem” (In *PH*<sup>2</sup> 24.28). Here, both *conceptio* and *intellectus* are plural, which are supposed to make up one mental speech.

<sup>25</sup> In *PH*<sup>1</sup> 38.2–5.

<sup>26</sup> The thesis is found in Sapir 1921, Whorf 1956. The concise overview of the hypothesis is given by Werner 1997. Current studies of linguistics (e.g., Baker 2001) consider their hypothesis incorrect.

constructions or expressions that refer directly to what we call 'time' and 'space.' Then, he argues, it is reasonable to assume that the Hopi do not have the concepts of time and space that Americans and Europeans do.<sup>27</sup> He claims that our thoughts are unconsciously determined by a language, its vocabulary and its grammatical structure, despite the fact that we believe that we control a language by using it to express our thoughts.<sup>28</sup> Boethius would not endorse their intellectual relativism that languages largely determine our thoughts.

In addition, Boethius is against relativism even with regard to value-concepts that many contemporary thinkers see as culturally dependent. According to Boethius, in ancient times Aspasius doubted how people could have the same thoughts about justice and goodness while having different opinions about these matters.<sup>29</sup> Taking the reality of values for granted, Boethius cautions that those who have 'wrong' opinions about goodness have not really understood what is good.<sup>30</sup> In other words, they possess thoughts (*intellectus*) not about goodness but about something else. On the basis of this assumption, he affirms the universality as well as the diversity of value-concepts by making distinctions between civil and natural goodness and justice. He claims that thoughts of natural justice and goodness are the same for all while thoughts of civil goodness and justice are different in different societies. This is because natural goodness and justice are the same for all while civil goodness and justice are different—the latter are established by stipulation (*positione*) of each society.<sup>31</sup> He gives another example, 'God,' and argues against religious relativism, saying that the thought of God, that is the thought of the most eminent nature, is the same for all people despite the fact that people adore God differently in different cultures.<sup>32</sup>

---

<sup>27</sup> Whorf, "An American Indian Model of the Universe" (written ca. 1936 and published in 1950) in Whorf 1956: 57–64.

<sup>28</sup> Whorf, "Language, Thought, and Reality" (1941) in Whorf 1956: 256: "As below, on the phonological plane of language, significant behavior is ruled by pattern from outside the focus of personal consciousness, so is it on the higher planes of language that we call expression of the thought. . . . [T]hinking also follows a network of tracks laid down in the given language, an organization which may concentrate systematically upon certain phases or reality, certain aspects of intelligence, and may systematically discard others featured by other languages. The individual is utterly unaware of this organization and is constrained completely within its unbreakable bonds."

<sup>29</sup> In *PH*<sup>2</sup> 41.13–16.

<sup>30</sup> In *PH*<sup>2</sup> 41.21–28.

<sup>31</sup> In *PH*<sup>2</sup> 41.28–42.4.

<sup>32</sup> In *PH*<sup>2</sup> 42.4–6.

These remarks on value-concepts in his second commentary on *Peri hermeneias* are relevant to the applicability of Boethius' theory of signification. As we have seen, he explains signification with the triad: 'spoken words,' 'things' and the 'affections of the soul,' which are concepts. And as I mentioned at the end of Chapter 1, he primarily uses natural-kind terms (e.g., 'horse,' 'stone'), the names of material beings, as models of his semantics. Discussing concepts of justice, goodness and God, however, he claims that the 'affections of the soul' can be concepts of immaterial beings. He says, "Aspasius believes that Aristotle has meant 'the affections of the soul,' not of incorporeal things but of those things that can be captured by senses. This is completely wrong."<sup>33</sup> Thus Boethius thinks that his (or Aristotle's) explanation is not confined to the sensible world but extends to the intelligible world.

### 3.2. Magee's Answer to Kretzmann's Second Question

So far it seems natural to hold that Boethius means by 'mental speech' a universal mental discourse, which everyone understands no matter what language one speaks. John Magee, however, claims that Boethius' mental speech is not translanguistic but possesses phonetic elements of some particular language. With a philological approach to Kretzmann's question, he proposes to interpret Boethius' mental speech to the effect that the mind *potentially* speaks all languages but *actually* speaks only this or that natural language.<sup>34</sup> In other words, mental speech is potentially the same for all, but actually different according to the language that one speaks or hears. As background for this interpretation, he suggests reading the following part of Proclus' commentary on *Timaeus*, to which Boethius may have had access and which may have influenced him.<sup>35</sup>

---

<sup>33</sup> In *PH*<sup>2</sup> 41.16–19: "Arbitratur [Aspasius] Aristotelem passiones animae non de rebus incorporalibus sed de his tantum quae sensibus capi possunt passiones animae dixisse. Quod perfalsum est."

<sup>34</sup> Magee 1989: 140–141 and 1986: 269–270 (1986 is explained much more clearly).

<sup>35</sup> Magee 1989: 140, n. 175 and 1986: 264–270 (1986 is again much clearer on this score). A number of scholars, such as Klingner (1921: 38sq.), Patch (1933 and 1935) and Courcelle (1948: 285–289 = 1969: 302–307) argue for Boethius' acquaintance with Proclus' works. For a criticism of their views, see Magee 2010b: 805. As for Proclus' influence on Boethius, I generally agree with Gersh's analysis (Gersh 1986, 2: 701–705). We could find some affinities with Proclus' thoughts in Boethius' writing, but Proclus' influence is not as significant as Plotinus' and Porphyry's. It is more likely that he had only indirect access to Proclus' works even if he knew them (Obertello 1974, 1: 507–521).

Also of the whole soul, we should think like that. For it laid down the whole life of the world as one and diverse, as a multi-headed animal utters sounds by all his heads, speaking Greek by one head while a barbaric language by another head; it embraces causes of all things coming into being, knowing particulars through universal, accidents through essences, parts through the wholes, and all things simply in virtue of the divine [part] within himself.<sup>36</sup>

Due to this purported influence, Magee infers that for Boethius the human mind functions similarly to the World Soul ('the whole soul') insofar as the human mind emanates from the World Soul and participates in it. As an inferior imitation of the World Soul, the human mind only potentially speaks all the languages; it actually only speaks either in Greek, Latin or some other language. In this part of Proclus' commentary Magee points out Plotinian influence, for instance, seeing Plotinus' words, "It [the Intellect] has said many things in one expression (ῥήσις)."<sup>37</sup> In both Plotinus and Proclus, we find the idea that higher beings do by themselves simultaneously what lower beings do separately.

One may find stronger support for Magee's interpretation in Porphyry's definition of 'speech in disposition' (λόγος ἐν τῇ διαθέσει). In *On Abstinence from Killing Animals*, Porphyry says,

And why should [a creature] not first have thought what it experiences, even before it says what it is going to say? I mean by 'thought' that which is silently voiced in the soul.<sup>38</sup>

Porphyry identifies thought with 'speech in disposition' and 'that which is voiced silently in the soul.' Just as the voice of the human being is outwardly brought forth either in Greek, Latin or some other language, so too would the voice be brought forth silently in the soul of

<sup>36</sup> *In Tim.* III, 305.14–21: "τοιούτον δεῖ νοεῖν καὶ ἐπὶ τῆς ὅλης ψυχῆς, ὅτι δὴ πᾶσαν ὑποστήσασα τὴν τοῦ κόσμου ζωὴν μίαν οὖσαν καὶ ποικίλην, οἷον ζῶον πολυκέφαλον κατὰ πάσας φθεγγόμενον τὰς κεφαλὰς καὶ πῇ μὲν Ἑλληνικὴν, πῇ δὲ βάρβαρον φωνὴν ἀφιέν, πάντων περιέχει τῶν γιγνομένων τὰς αἰτίας, τὰ μὲν καθ' ἕκαστα τοῖς καθόλου, τὰ δὲ συμβεβηκότα ταῖς οὐσίαις, τὰ δὲ μέρη τοῖς ὅλοις γινώσκουσα, πάντα δὲ κατὰ τὸ ἐν αὐτῇ θεῖον ἀπλῶς."

<sup>37</sup> *Enneades* V 3, 13. 28: "εἴρηκε μὲν ῥήσει πολλά." Magee (1989: 140, n. 175) quotes this sentence. The Intellect (νοῦς) in Plotinus is a higher substance than the human soul.

<sup>38</sup> *De abstinence* III, 3, 2: "τί δὲ οὐχὶ καὶ ἃ πάσχει τι, πρότερον καὶ πρὶν εἰπεῖν ὃ μέλλει, διενόηθη; λέγω δὲ διάνοιαν τὸ ἐν τῇ ψυχῇ κατὰ σιγὴν φωνούμενον." I adopt Gillian Clark's translation of this text.

the human being. If Magee's interpretation is correct, Boethius' mental speech is far beyond the semantic framework that Aristotle provides in *Peri hermeneias*, being under the influence of Neoplatonism.<sup>39</sup>

Magee raises different reasons for doubting the translanguistic view besides Kretzmann's, based on Boethius' remark of 'noun' and 'verb' in mental speech. Magee believes that the following expressions in Boethius' second commentary support his interpretation. First, Boethius calls mental speech 'thinkable speech' (*cogitabilis oratio*) not 'sayable thinking' (*dicibilis cogitatio*).<sup>40</sup> According to Magee, this term implies the possibility that the outer speech is conceived silently in the mind,<sup>41</sup> instead of the possibility that inner thought is spoken out loud. 'Thinkable speech' is "the inner articulation of a word or words already in a known linguistic medium,"<sup>42</sup> such as some words in Latin conceived silently in the mind.

Second, Magee says that Boethius' descriptions of the process of communication square with this interpretation:

(e) When every noun is heard, the vocal sound takes a tiny period of time in progressing through syllables; the mind (*animus*) of the listener also progresses during the progression of the time in which the noun is uttered. For instance, when I utter 'inperterritus,' as the noun progresses through the syllables, 'in,' 'per,' 'ter,' and so on, the mind of the listener goes through the same syllables. When one has finished the noun and has uttered 'inperterritus,' as the definite noun (*nomen finitum*) halts from the progression of the syllables, the mind of the listener comes to rest. When he listens to the whole noun, he grasps the whole signification; the mind of the listener, which followed the syllables of the speaker, wishing to understand what the speaker said, stays firm (*consistit*) when he has grasped the signification; his mind (*animus*) is settled precisely when the noun is completed.<sup>43</sup>

<sup>39</sup> I will leave it in question whether these Neoplatonists intend to mean by their statements what Magee expects them to say. Cf. Magee 1986: 271.

<sup>40</sup> Magee (1989: 116) says that Boethius himself does not intend to contrast 'cogitabile' with Augustine's 'dicibile,' which is found in Augustine, *De dialectica* c.5 [8]: "Quidquid autem ex verbo non aures sed animus sentit et ipso animo tenetur inclusum, dicibile vocatur."

<sup>41</sup> Here, I am indebted to Panaccio (1999: 136) for his explanation of Magee's reasoning.

<sup>42</sup> Magee 1989: 139.

<sup>43</sup> In *PH*<sup>2</sup> 72.14–28 (cited in Magee 1989: 119 and 139): "[O]mni nomine audito quoniam per syllabas progrediens vox aliquantulum temporis spatium decerpit, in ipsa progressionem temporis qua dicitur nomen audientis quoque animus progreditur: ut cum dico 'inperterritus,' sicut per syllabas 'in' et 'per' et 'ter' et ceteras progreditur

(f) When we utter a simple noun, [an operation of] the intellect (*intellectus*) of the listener begins at our pronunciation, follows the spoken word (*vox*) of the speaker during the time we speak, and rests when that noun is finished. When I utter '*hippocentaurus*,' [an operation of] the intellect of the listener begins at the first syllable and does not rest until the end of the whole noun. When he has heard the final syllable, the listener immediately understands what was said and his act of understanding (*intellegentia*) rests. The same holds for a verb. When we utter '*currere*,' the intellect of the listener goes through the syllables, that are '*cur*,' '*re*,' and once more '*re*.' But when he has listened to the final syllable, grasping the signification of the whole verb, his intellect rests. Hence, the verb uttered by itself is similar to, and is somehow a noun. Just as in the case of a noun, one who speaks establishes a thought of the listener at the pronunciation and the completion (*perfectio*) of the whole noun; one who listens rests and his act of understanding does not progress further—so in the case of a verb, it establishes a thought of the listener if it is uttered by itself.<sup>44</sup>

In these texts (e) and (f), which are cited from his commentaries on chapter 3 (16b19–25), Boethius explains why a verb spoken alone should be regarded as a noun.<sup>45</sup> For this, he explains with examples of what is happening in the listener's mind when he listens to a noun and then to a verb spoken alone. In these texts, there are a few expressions to be explained for those who are unfamiliar with Latin and with the ancient tradition of logic. First, the example in text (e) is '*inperterritus*,' a Latin word that means 'undaunted.'<sup>46</sup> In calling it 'a noun,' more specifically 'a

---

nomen, ita quoque animus audientis per easdem syllabas vadit. Sed ubi quis expleverit nomen et dixerit '*inperterritus*,' sicut nomen finitum syllabarum a progressionem consistit, ita quoque audientis animus conquiescit. Nam cum totum nomen audit, totam significationem capit et animus audientis, qui dicentis syllabas sequebatur volens quid ille diceret intellegere, cum significationem ceperit, consistit et eius animus perfecto demum nomine constituitur."

<sup>44</sup> In *PH*<sup>1</sup> 63.8–27: "Cum enim simplex dicimus nomen, auditoris inchoat intellectus cum nostra prolatione et dum proferimus, dicentis sequitur vocem et tunc quiescit, cum illud nomen fuerit expletum. Cum enim dico *hippocentaurus*, ingreditur a prima syllaba audientis intellectus et usque ad finem totius nominis non quiescit. Ubi vero extremam audierit syllabam, mox quid dictum sit auditor intellegit et eius intellegentia conquiescit. Sic ergo et in verbo. cum dicimus *currere*, intellectus quoque audientis per eas syllabas quae sunt *cur* et *re* et rursus *re* vadit, sed ubi extremam audierit syllabam, mox totius verbi capiens significationem intellectus quiescit. Ergo verbum per se dictum nomini simile est et est quodammodo nomen. Sicut enim in nomine is qui dicit intellectum audientis ultimae syllabae prolatione et totius nominis perfectione constituit et is qui audit quiescit et ultra eius intellegentia non progreditur: ita quoque et verbum si per se dicatur audientis constituit intellectum."

<sup>45</sup> I will discuss equivocations of 'noun' and 'verb' in Chapter 4, § 3.4.

<sup>46</sup> Virgil uses the word in *Aen.* X, 770. Quintilian (*Inst.* I, c.5 [65]) uses this word as

definite noun,' Boethius follows the ancient tradition of logic and grammar. We will find 'inperterritus' in any Latin dictionary as an adjective, but all adjectives are nouns according to this tradition; Aristotle virtually counts adjectives as 'nouns' in chapter 20 of *Poetics*<sup>47</sup> and grammarians after Aristotle also hold this view. The philosophical reason why Aristotle and Boethius hold this view will be revealed in the next chapter. Second, Aristotle calls a word such as 'non-man' 'an indefinite noun' in chapter 2 of *Peri hermeneias* (16a29–31). For ordinary nouns that do not include a negative particle 'not-' (οὐ-), Aristotle does not give any specific name, but based on Aristotelian tradition, it is reasonable for Boethius to call them 'definite nouns' (*nomina finita/definita*) in contrast with indefinite nouns.<sup>48</sup> We will see more about Boethius' classifications of nouns in the next chapter. Third, the examples in text (f), 'hippocentaurus' and 'currere,' are Latin words, the former a noun and the latter a verb; 'hippocentaurus' is 'a fabulous creature that is half-man and half-horse' and 'currere' means 'to run.'

### 3.3. *The Problems in Magee's Interpretation*

Neither of Magee's points, however, seems to show that mental speech is an interiorization of outer speech, as he proposes.<sup>49</sup> As for the first point, I should note that the expression 'thinkable speech' (*cogitabilis oratio*) is used only once in the commentary in the following context:

(g) For, thinkable utterances (*cogitabiles orationes*) come to participate in truth or falsity in the following manner: "Man is," "Man is not," "Man is white," "Man is not white;" among them, "Man is" or "Man is white" is said by composition, because the former joins 'to be' (*esse*) and 'man,' the latter 'man' to 'white' through a combined mental predication. If I add

---

an example of composite words (*voces compositae*) that are formed from their primary forms by adding a prefix. Donatus uses this word as an example, in *Ars minor* 586.15 = 355.24–25 and *Ars maior* 624.5 = 377.8.

<sup>47</sup> 'White' (λευκόν) is treated as a noun in Aristotle, *Poetics*, ch. 20, 1457a16. See also the commentaries on *Poetics*: "The general term ὄνομα must be taken to include not only the nouns, but also the adjectives, the personal and demonstrative pronouns, and possibly even the article as a kind of pronoun—in fact all the declinable parts of speech except perhaps the relatives, which may have been classed among the ἄρθρα" (Bywater 1909: 274); "[ὄνομα] here includes adjectives, pronouns, and probably adverbs" (Lucas 1968: 202). For the relationship between adjective and noun in Greek, see Kahn 1973: 102–104.

<sup>48</sup> For Boethius' explanation of the indefinite noun, see *In PH*<sup>2</sup> 61.8–63.14. He does not mention the contrasted expression 'definite noun' there.

<sup>49</sup> Panaccio (1999: 136) says that Magee's argument is not convincing. Ebbesen (1991: 153) expresses doubt about Magee's interpretation.



something to the thought of man, for example, “Man is,” “Man is not,” “Man is white” or something like this, truth or falsity is engendered in the thinking (*cogitatio*) itself.<sup>50</sup>

This text does not necessarily show the interiorization of outer speech in the mind, namely, conceiving spoken words in the mind. The word *cogitabilis* (< *cogitare* + *-bilis*) generally shows only the fact that the thing, here the speech in question, can be an object of actual thinking.<sup>51</sup> “Thinkable speech” can be spoken speech (as Magee infers) but also the ‘speech in the mind,’ which Boethius says is the same for all (see text (c)). The ‘speech’ in the mind consists of thoughts and while a thought is not always actually entertained, that is, under consideration, it is potentially thinkable, and thus a thought in the soul and the speech in the mind are legitimately called ‘*cogitabilis*.’ It is possible, then, to interpret the text as saying that thinkable things, i.e., the thoughts which make up mental speech potentially, have some truth-value when they are combined in actual thinking.

As for Magee’s second point, first look at text (e). The text shows that the perception of syllables precedes the comprehension of the meaning of a word. As for the former operation of the mind, i.e., the perception of syllables, Boethius does not mention an operation of the intellect (*intellectus*). As for the latter operation of the mind, i.e., the comprehension of meaning, he says that an act of the intellect is involved in order to obtain a thought (*intellectus*) or a concept of the thing.

The following text cited from Boethius’ second commentary on chapter 1 contains an explanation of how a listener understands the meaning of a spoken word. Here Boethius clearly says that understanding (*intellegere*) and thoughts (*intellectus*) are involved, but he makes no remark about syllables or the phonetic elements of a word:

---

<sup>50</sup> In *PH*<sup>2</sup> 44.25–45.2: “([F]ient enim cogitabiles orationes veritatis vel falsitatis participes hoc modo: homo est, homo non est, homo albus est, homo albus non est, quarum quidem homo est vel homo albus est conpositione dicitur: nam prior esse atque hominem, posterior hominem albo composita intellectus praedicatione connectit): si vero ad hominis intellectum adiciam quiddam, ut ita sit homo est vel non est vel albus est aut aliquid tale, tunc in ipsa cogitatione veritas aut falsitas nascitur.”

<sup>51</sup> E.g., Augustine, *Tract. in Ioh.* LIII, § 2, 452.16–19: “Sed Dominus Iesus unigenitus Dei Patris Filius, sicut non est paterni corporis membrum, ita non est cogitabile uel sonabile ac transitorium uerbum; quia cum omnia per ipsum facta sunt, Dei Verbum erat.” According to a note on Augustine’s *De trinitate* (Agaësse et al. 1991: 606), “Appliqué à l’âme, le *cogitare* n’est donc pas proprement une connaissance, mais l’activité synthétique par laquelle l’âme se dit son verbe par la médiation de l’amour.”

(h) On the other hand, the one who learns, who listens, or also who answers, progressing from nouns to thoughts, [finally] arrives at things. For, the one who learns, or who listens, or who answers to a word (*sermo*) of the teacher or the speaker or the interrogator, understands (*intellegit*) what each of these people says, and through understanding (*intellegens*) [it], also grasps the knowledge of things and stays in the knowledge.<sup>52</sup>

It is much more natural, therefore, to take ‘speech of the intellect’ (*oratio intellectus*) as the intellectual understanding (*‘intellegere’*) of the meaning of spoken words rather than as the comprehension of phonetic elements of spoken words, regarding which Boethius does not mention the role of the intellect (*intellectus*) at all.

Text (f), which Magee mentions in a footnote,<sup>53</sup> seems to work better, since it says that the act of the intellect progresses along with the pronunciation of syllables and goes through syllables. The text, however, does not necessarily imply that the object of intellectual understanding in mental speech is identical with, or at least includes syllables. The intellect goes through syllables, but it is possible that the operation of the intellect in mental speech is something different from it.

In using a language, I assume that there are two different kinds of intellectual understanding, namely one for comprehension of the meanings of spoken words, another for comprehension of their sounds. These two acts of the intellect often occur at the same time, but what Boethius regards as mental speech must be only the former, i.e., intellectual understanding of the meanings of spoken words. For, as I mentioned above (§ 3.1), Boethius explicitly claims that mental speech is identical and unchangeable for all; moreover, he never mentions the comprehension of the sounds of spoken words by the intellect when he describes the comprehension of meaning in his explanation of Aristotle’s chapter 1 (text (h)). I believe that texts (e) and (f), which Magee cites from Boethius’ commentaries on Aristotle’s chapter 3, cannot be any great help for understanding Boethius’ mental speech as proposed in his second commentary on Aristotle’s chapter 1. The textual evidence is against the view that his notion of mental speech is or contains the intellectual understanding of the phonetic parts of words.<sup>54</sup>

From a philosophical point of view, we should acknowledge two different kinds of mental activities, i.e., comprehension of the phonetic parts

<sup>52</sup> In *PH*<sup>2</sup> 24.1–7. For the Latin text, see note 117 of this chapter.

<sup>53</sup> Magee 1989: 119, n. 118.

<sup>54</sup> Kneale (1962: 195) and Lenz (2003: 42) hold that it is clear that Boethius’ notion of mental speech is not in a particular language.

of spoken words (somewhat suggested in texts (e) and (f)) and comprehension of the meaning of spoken words (clearly described in text (h)), though the two activities often occur at the same time. The different mental contents of the different mental activities can be called 'surface mental representations' or 'sub-vocalized thoughts' and 'deep mental representations'.<sup>55</sup> Indeed, following Augustine's remark about 'the likeness of the sound (*similitudo soni*) in the mind' in *On the Trinity*,<sup>56</sup> not a few medieval thinkers make a distinction between these two mental activities. In addition to the mental words that belong to no natural language, they mention mental words that belong to some particular natural language, having phonetic properties in themselves. Anselm says we engage in "imperceptibly thinking to ourselves the same signs, which are perceptible outside us."<sup>57</sup> Roger Bacon's thinking includes the notion of 'species of a vocal sound' (*species vocis*).<sup>58</sup> All of these expressions are meant to refer to the mental word that contains information about the phonetic properties of a spoken word, having its existence in the intellect. Especially in the first stage of learning a foreign language, we need to take time to consider how to express our thoughts in that language. Even in the case of a native language, though much less often, we rehearse what we shall say silently in our minds and then utter it with our voices. Thus, there seems to be an operation of the mind for going from a conceptual thought (e.g., a concept of 'horse') to its linguistic articulation (e.g., 'equus').

But Aristotle never mentions this sort of operation of the mind, and this also is not what Boethius means by mental speech. Insofar as Aristotle never mentions it in *Peri hermeneias*, Boethius does not feel the necessity to mention it in his commentaries on the work.<sup>59</sup>

### 3.4. *The Status of the Noun-Verb Distinction in the Mind*

The above consideration tells us that we should not understand Boethius' statement regarding the noun-verb distinction in mental speech in the way that the mind actually but silently speaks nouns and verbs of a

<sup>55</sup> These expressions are borrowed from Putnam 1988: 39.

<sup>56</sup> See n. 18 of this chapter.

<sup>57</sup> *Monologion*, ch. 10: "[E]adem signa, quae foris sensibilia sunt, intra nos insensibiliter cogitando."

<sup>58</sup> *De signis* §§ 16–18, 86–87.

<sup>59</sup> Ammonius does not mention another kind of mental speech in his commentary on *Peri hermeneias* either.

natural language. The noun and the verb in the mind are thoughts universally conceived by human beings irrespective of the languages that they speak.

Focus upon the noun-verb distinction in Boethius' mental speech in medieval and contemporary literature has created the impression that Boethius often applies the noun-verb distinction in mental speech to his explanations of mental and linguistic operations. For instance, William of Ockham introduces Boethius' commentary in his *Summa logicae*, saying, "Nor should anyone be surprised that I say that there are mental nouns and verbs. Let him first read Boethius' commentary on *Peri hermeneias*; he will find the same thing there."<sup>60</sup> Boethius, however, mentions 'the nouns and verbs in the mind' only once in his commentaries (i.e., in text (b)). The major reason for this is that a noun and a verb in mental speech do not have any phonetic ingredients while a noun and a verb defined in Aristotle's *Peri hermeneias* are 'items in a vocal sound' (τὰ ἐν τῇ φωνῇ) and, therefore, have phonetic ingredients.<sup>61</sup>

Nevertheless it is true that Boethius calls thoughts 'nouns and verbs in the mind' apparently against Aristotle's definition, even if it is only once in his works. If thoughts are not nouns or verbs actually spoken, i.e., nouns or verbs of a natural language, then, why are thoughts called 'nouns' or 'verbs'? The puzzle seems to have led Kretzmann to raise doubt about universal mental speech. The natural solution to this puzzle, it seems to me, is to introduce the Aristotelian distinction between act and potency and to take the noun and the verb in the soul as those in potency (*in potentia*) rather than in act (*in actu*). The noun and the verb in the soul, i.e., the thoughts in the mind, are not actually verbal because they lack phonetic ingredients. Instead, they acquire the actuality of nouns and verbs when we express thoughts with vocal sounds. But thoughts are potential to many things, just as a block of silver is potential to coins, cutlery, rings and so on; thoughts are also potentially actions or artifacts, insofar as a man conceives actions that he may be going to take or artifacts

---

<sup>60</sup> Ockham, *SL* I, c.3, 14.100–102: "Nec miretur aliquis quod dico aliqua nomina et verba esse mentalia, sed prius legat Boethium super *Perihermenias*, et hoc ibidem inveniet."

<sup>61</sup> Aristotle, *PH*, ch. 1, 16a3. A noun is defined as 'a significant spoken sound' (φωνὴ σημασιτική) in *PH*, ch. 2, 16a19–20. Speech (λόγος) is defined as 'a significant spoken sound' in *PH*, ch. 4, 16b26. In *Cat.*, ch. 6, 4b33, Aristotle says that speech is evidently a 'quantity' (ποσόν) because it is measured by long and short syllables, and Boethius follows this account in *In Cat.* 203b–c.

that he may be going to make. Why, then, should we call thoughts ‘nouns’ ‘verbs’ or ‘speech’ rather than ‘actions’ or ‘artifacts’? This is because the connection between thoughts and language is much deeper and more fundamental than the connections between thoughts and artifacts and between thoughts and actions.

Boethius realizes that some ingredient of human thought is similar to spoken speech. This is, in brief, the potential to form composites: non-propositional thoughts or concepts are the constituents of a propositional thought just as single words (to be exact, nouns and verbs) are the constituents of a sentence.<sup>62</sup>

When I say, “Socrates walks,” my having conceived that he walks, is not itself a composition. But when I combine ‘to walk’ with ‘Socrates’ in the progression of the thought, some composition is made up already. If I have expressed this in an utterance (*oratio*), then there is the same composition, and the force (*vis*) of truth and falsity becomes apparent in connection with the composition.<sup>63</sup>

Whenever we join or combine a substance with an accident, or we couple a thought with a thought so that a proposition can result in thinking, the same results in a spoken word.<sup>64</sup>

These passages suggest the similarity between thoughts (i.e., ‘mental utterances’) and spoken utterances, and moreover the primacy of thoughts (i.e., ‘mental utterances’) over spoken utterances in composition

---

<sup>62</sup> Compositionality is the quality of thought in virtue of which Fodor tries to defend LOT. The ability of producing different sentences (‘productivity’) and understanding and making them systematically (‘systematicity’) presuppose compositionality. ‘Productivity’ and ‘systematicity’ are considered to be strong assets for LOT (Fodor 1987: 149–151 and Murat 2004). Cf. Fodor 1987: 138: “It’s whether they have a *combinatorial* semantics: the kind of semantics in which there are (relatively) complex expressions whose content is determined, in some regular way, by the content of their (relatively) simple parts.”

<sup>63</sup> *In PH*<sup>2</sup> 46.27–47.5: “Nam in ipsa quidem habitudine imaginationis et rei nulla compositio est, in coniunctione vero intellectuum compositio fit. Nam cum dico Socrates ambulat, hoc ipsum quidem, quod eum ambulare concepi, nulla compositio est; quod vero in intellectus progressionem ambulationem cum Socrate coniungo, quaedam iam facta est compositio. Quod si hoc oratione protulero, rursus eadem compositio est et circa eam vis veritatis et falsitatis adparet.” For the primacy of truth-values in thoughts, see also *In PH*<sup>2</sup> 49.27–32 (this text is cited on page 35).

<sup>64</sup> *In PH*<sup>1</sup> 42.28–43.3: “Quotiens enim substantiam cum accidenti coniungimus atque componimus vel intellectum intellectui copulamus, ut fieri propositio possit in cogitatione, tunc fit idem in voce.” See also the preceding passage of this text, in Chapter 2, note 123, p. 71.

and truth-value. As Boethius would say, a spoken utterance ‘bears a likeness’ (*gerit similitudinem*) of a thought, i.e., ‘a mental utterance.’<sup>65</sup> Simple thoughts, for instance, a thought of ‘Socrates’ and a thought of ‘to walk,’ possess no truth-value. Neither do the words that express these simple thoughts, that is, ‘Socrates’ and ‘to walk.’ Simple thoughts, however, can be combined into a composite of thoughts and this, as a result, can bear a truth-value in the same way that a sentence is composed of words, i.e., a noun and a verb, and bears a truth-value. The composite of thoughts (‘a proposition in thinking’) is the principal bearer of a truth-value and the spoken sentence is a derivative bearer. For instance, the sentence “Socrates walks” consists of the noun ‘Socrates’ and the verb ‘walks’ just as the thought “Socrates walks” is a composite of the thought of ‘Socrates’ and that of ‘to walk.’ The truth-value of the sentence “Socrates walks” is the same as the truth-value of the composite of thoughts “Socrates walks,” and the truth-value of the spoken sentence depends upon the truth-value of the composite of thoughts.

#### 4. Order of Speaking (*Ordo Orandi*)

##### 4.1. *The Order of Things, Thoughts, Spoken Words and Written Words*

Now it is clear that mental speech (*oratio in mente*) is a universal mental discourse. How is mental speech related to the other two types of speech, i.e., spoken and written speech? Moreover, how are the other two types of speech related to each other? The latter is Kretzmann’s first question (see § 2). To answer these questions, I will begin with Boethius’ explanation of the ‘order of speaking’ (*ordo orandi*):

---

<sup>65</sup> In *PH*<sup>2</sup> 48.19–21 (in the text cited in Chapter 2, p. 70). His idea and expression are somewhat similar to Plotinus’ and also Dexippus’: “Ὡς γὰρ ὁ ἐν φωνῇ λόγος μίμημα τοῦ ἐν ψυχῇ, οὕτω καὶ ὁ ἐν ψυχῇ μίμημα τοῦ ἐν ἐτέρῳ. Ὡς οὖν μεμερισμένος ὁ ἐν προφορᾷ πρὸς τὸν ἐν ψυχῇ, οὕτω καὶ ὁ ἐν ψυχῇ ἐξηγητὴς ὢν ἐκείνου πρὸς τὸ πρὸ αὐτοῦ” (*Enneades* I 2, 3.27–30); “[ἡ ψυχὴ] εἰκὼν τίς ἐστι νοῦ· οἷον λόγος ὁ ἐν προφορᾷ λόγου τοῦ ἐν ψυχῇ, οὕτω τοι καὶ αὐτὴ λόγος νοῦ καὶ ἡ πᾶσα ἐνέργεια καὶ ἣν προΐεται ζωὴν εἰς ἄλλου ὑπόστασιν” (*Enneades* V 1, 3.7–8); “πρῶτος γὰρ λόγος ὁ ἐν τῇ διανοίᾳ, ἀφ’ οὗ περ εἰκὼς καὶ τὸ λέγειν αὐτὸ καὶ τὸν ἐν τῇ φωνῇ λόγον προσαγορεύεσθαι” (Dexippus, *In Cat.* 10.5–6). Boethius once mentions Plotinus’ name in *De div.* 4.6 = 875d, calling him ‘a most profound philosopher’ (*grauissimus philosophus*). But there is little evidence that he read *Enneades* (Magee 1998: 59). Thus, Plotinus’ influence on Boethius is largely indirect. For an explanation of Plotinus’ texts above cited, see Heiser 1991: 19 sqq.

(α) Whether [in the case of] any kind of (i) question and (ii) answer or [in the case that] (i) someone makes an uninterrupted continuation of an utterance (*oratio*) and (ii) someone else hears and understands or [in the case that] (i) one teaches and (ii) the other learns, the whole order of speaking (*ordo orandi*) is completed by these three [items]: things (*res*), thoughts (*intellectus*), and spoken words (*voces*). A thing is conceptualized by the intellect (*intellectus*), and a spoken word signifies conceptions (*conceptiones*) of the mind (*animus*) and the intellect, and the thoughts conceptualize subject things and are signified by spoken words. Now, since there are three [items] by which every speech or talk is completed, [that is] things which are subjects, thoughts that conceptualize things and are conversely signified by spoken words, and spoken words that signify (*designare*) thoughts; there is also a fourth by which spoken words themselves can be signified, that is written words (*litterae*). For, written words (*scriptae litterae*) themselves signify spoken words.<sup>66</sup>

Boethius says that the order of speaking consists of three items: 'things' (*res*), 'thoughts' (*intellectus*) and 'spoken words' (*voces*). Spoken words signify thoughts, and thoughts conceptualize a thing.<sup>67</sup> Then, he proposes 'written words' (*litterae*), which signify spoken words, as a fourth item.<sup>68</sup> He continues to explain the order:

(β) These four [items] exist like this: Written words (*litterae*) signify spoken words and spoken words signify thoughts while thoughts conceptualize things, which do not have any confused and random following (*consequentia*) but are established in the determined ordering (*ordinatio*) of their own nature. For, things always accompany (*comitantur*) a thought that is conceived from them, a spoken word follows (*sequitur*) the thought, and elements (*elementa*), i.e., written words (*litterae*), follow spoken words (*voces*).<sup>69</sup>

<sup>66</sup> *In PH*<sup>2</sup> 20.12–26: "Sive enim quaelibet interrogatio sit atque responsio, sive perpetua cuiuslibet orationis continuatio atque alterius auditus et intellegentia, sive hic quidem doceat ille vero discat, tribus his totus orandi ordo perficitur: rebus, intellectibus, vocibus. Res enim ab intellectu concipitur, vox vero conceptiones animi intellectusque significat, ipsi vero intellectus et concipiunt subiectas res et significantur a vocibus. Cum igitur tria sint haec per quae omnis oratio conlocutioque perficitur, res quae subiectae sunt, intellectus qui res concipiant et rursus a vocibus significantur, voces vero quae intellectus designent, quartum quoquo quiddam est, quo voces ipsae valeant designari, id autem sunt litterae. Scriptae namque litterae ipsas significant voces."

<sup>67</sup> He makes a similar statement in *In PH*<sup>1</sup> 37.5–10.

<sup>68</sup> He lists the four items in *In PH*<sup>1</sup> 57.5–15.

<sup>69</sup> *In PH*<sup>2</sup> 20.26–21.1: "Quare quattuor ista sunt, ut litterae quidem significant voces, voces vero intellectus, intellectus autem concipiant res, quae scilicet habent quandam non confusam neque fortuitam consequentiam, sed terminata naturae suae ordinatione constant. Res enim semper comitantur eum qui ab ipsis concipitur intellectum, ipsum vero intellectum vero vox sequitur, sed voces elementa, id est litterae."

Boethius claims that written words always signify spoken words, spoken words signify thoughts, and thoughts conceptualize things because things come first, thoughts second, spoken words third, and written words fourth in ‘the ordering of their own nature.’<sup>70</sup> He reaffirms this arrangement, saying that the ordering cannot be reversed:

(γ) A thing precedes a thought, a thought precedes a spoken word (*vox*), a spoken word precedes a written word (*littera*), and this [ordering] cannot be reversed.<sup>71</sup>

He explains the fact as follows. Where there is a thing, the mind has a thought of it. Human intelligence may sometimes fail to understand a thing, but divine intelligence surely knows it.<sup>72</sup> When there is a thought, there is a spoken word that expresses the thought.<sup>73</sup> When there is a spoken word, there is a written word that corresponds to it.<sup>74</sup> But the reverse is not true. Given letters, the illiterates cannot read them aloud as a spoken word.<sup>75</sup> We sometimes emit meaningless vocal sounds (*voces*), namely vocal sounds that lack a thought corresponding to these sounds.<sup>76</sup> We entertain a thought of a chimera, but there is no objective being (*res*) corresponding to this thought.<sup>77</sup>

#### 4.2. *Ordering of Nature* (Ordinatio Naturae)

What is the ‘ordering of their own nature,’ in which, Boethius says, the order among things, thoughts, spoken words and written words is fixed and cannot be reversed? The fact that the order cannot be reversed is easy to understand from his explanation, but what type of order does he have

<sup>70</sup> Ammonius makes a similar statement in *In PH* 18.26–27: “ἐν οἷς πρώτην μὲν ἔχει τάξιν τὰ πράγματα δευτέραν δὲ τὰ νοήματα τρίτην αἱ φωναὶ καὶ τελευταίαν τὰ γράμματα.”

<sup>71</sup> *In PH*<sup>2</sup> 21.28–30: “Praecedit autem res intellectum, intellectus vero vocem, vox litteras, sed hoc converti non potest.” Berka must have this sentence in mind when he says (1968: 454): “Diese semiotischen Grundelemente bilden eine geordnete Reihe—die Sache, das Abbild, die Stimme, die Buchstaben—deren Glieder nicht umkehrbar sind.” This comment exactly follows Boethius’ statement, but Magee (1989: 69) seems to say that Berka’s comment is wrong considering the reversed order from the standpoint of a listener (see § 4.4 in this chapter). In order to avoid misunderstanding, Berka ought to have said what kind of order he meant.

<sup>72</sup> *In PH*<sup>2</sup> 22.6–11.

<sup>73</sup> *In PH*<sup>2</sup> 22.11.

<sup>74</sup> *In PH*<sup>2</sup> 22.11–13.

<sup>75</sup> *In PH*<sup>2</sup> 21.31–33.

<sup>76</sup> *In PH*<sup>2</sup> 21.33–22.1.

<sup>77</sup> *In PH*<sup>2</sup> 22.3–6.



in mind? John Magee says, “The order is not conceived as a temporal one (*res comitantur intellectum*), but as a logical one.”<sup>78</sup> Boethius says in his commentary on *Categories* that a thing as an object of knowledge is prior to knowledge.<sup>79</sup> Magee takes this statement to suggest that a thing is logically, under the Aristotelian category of relation, prior to a thought that constitutes knowledge.<sup>80</sup>

I propose that it is more reasonable to see a causal relation in the ‘ordering of nature.’<sup>81</sup> The cause is prior to the effect, and the causal order is fundamental to the logical order. In different texts, including text (δ) that immediately follows text (β), Boethius suggests that there are some causal relations among things, thoughts (or ‘the affections of the soul’), and spoken words:

(δ) Thoughts *originate from* (*oriuntur*) things which are placed in advance [to thoughts or the intellect] and have been constituted in their own substances. For thoughts are always of things, and the signification of a spoken word *comes out* (*exoritur*) straightforwardly (*mox*) when the thoughts are constituted.<sup>82</sup>

(ε) Since, then, every affection of the soul is evidently a certain property of a thing, and since vocal sounds (*voces*) rest on the signification, first, of

<sup>78</sup> Magee 1989: 72. In this sentence, Magee probably quotes the Latin sentence as a counterexample against the interpretation that the order is understood as a temporal one.

<sup>79</sup> The following part of his commentaries on *Categories* is especially relevant to Magee’s claim (see also Magee 1989: 88): “*Quare prius quam sensus sensibile esse vide(bi)-tur* (Cat. 8a11): Sed quidam, quorum Porphyrius quoque unus est, astruunt in omnibus verum esse relativis, ut simul natura sint, veluti ipsum quoque sensum et scientiam non praecedere scibile atque sensibile, sed simul esse, quam quoniam brevis est oratio, non gravabor opponere. Ait enim: Si cuiuslibet scientia non sit, ipsum quod per se poterit permanere scibile esse non poterit, ut si formatum scientia pereat, ipsae fortasse formae permaneant, atque in priore natura consistent, scibiles vero non sint. Cum enim scientia quae illud comprehendere possit, non sit, ipsa quoquo sciri non potest res. Namque omnis res scientia scitur, quae si non sit, sciri non possit” (*In Cat.* 233b–c, ⟨⟩ Magee’s supplements).

<sup>80</sup> Magee 1989: 72.

<sup>81</sup> Ebbesen (1991:152) suggests the same.

<sup>82</sup> *In PH*<sup>2</sup> 21.1–4: “Rebus enim ante propositis et in propria substantia constitutis intellectus oriuntur. Rerum enim semper intellectus sunt, quibus iterum constitutis mox significatio vocis exoritur.” Ebbesen (1991: 151) sees the tension between Porphyry and Iamblichus in this text. He says that “rebus enim ante propositis” has affinity with “τῶν προαγμάτων ἐκκειμένων” (Porphyry, *In Cat.* 57.20) whereas “in propria substantia constitutis” sounds more Iamblichean. For the tension, see Wallis 1972: 129.

thoughts and, then, of the things *from which the thoughts originate*, whatever is significant in the vocal sounds signifies (*designat*) the affections of the soul.<sup>83</sup>

(ζ) But because it is demonstrated that verbs, nouns and speech are principally significant of thoughts, what is in a vocal sound of signification (*vox significationis*) comes from (*venit ab*) thoughts.<sup>84</sup>

(θ) Since a noun and a verb and every speech are significant of the affections of the soul, the property of signification *is engendered* (*innascitur*) in the very spoken words (*voces*) from them [i.e., the affections of the soul] (*ex ipsis*), which they [i.e., a noun, a verb and speech] doubtless signify (*designant*).<sup>85</sup>

(ι) For, if the things that are in the soul are *some causes* (*principia*) of the things that are signified in the vocal sound (*vox*) ...<sup>86</sup>

The expressions that I put in italics suggest some sort of causal relations. Things cause thoughts, and thoughts cause spoken words.<sup>87</sup> What kind of causation is involved?<sup>88</sup> Boethius' expressions and Aristotle's statements that Boethius may have in mind with regard to this matter suggest formal causes. A thought is the form of a thing received in the mind without matter;<sup>89</sup> a thought is the form of a spoken word while a vocal sound

<sup>83</sup> In *PH*<sup>2</sup> 34.21–26: “Quocirca cum omnis animae passio rei quaedam videatur esse proprietas, porro autem designativae voces intellectuum principaliter, rerum dehinc a quibus intellectus perfecti sunt significatione nitantur, quidquid est in vocibus significativum, id animae passiones designat.”

<sup>84</sup> In *PH*<sup>2</sup> 43.18–21: “Sed quoniam demonstratum est, quoniam et verba et nomina et oratio intellectuum principaliter significativa sunt, quidquid est in voce significationis ab intellectibus venit.”

<sup>85</sup> In *PH*<sup>2</sup> 44.9–12: “Quoniam nomen et verbum atque omnis oratio significativa sunt animae passionum, ex ipsis sine dubio quae designant in eisdem vocibus proprietas significationis innascitur.”

<sup>86</sup> In *PH*<sup>1</sup> 223.5–7: “[N]am si ea quae sunt in anima principia quaedam sunt eorum quae significantur in voce, ...”.

<sup>87</sup> Ammonius claims that thoughts are considered to be a cause of spoken words in *In PH* 18.5–6: “ὡς πρὸ τῶν φωνῶν περὶ τὰ νοήματα θεωρεῖται ταῦτα ὡς αἴτια τῶν φωνῶν ὄντα.”

<sup>88</sup> Boethius provides a lengthy discussion of causes in *In Cic. Top.* 367.7–375.47 = 1145d–1156a. He discusses Aristotle's four causes and Cicero's classifications of causes. Saying that “that which produces (*id quod efficit*) is the cause consisting in the source of motion” (*In Cic. Top.* 367.11–14 = 1146a), he identifies the ‘moving cause’ (*causa movens*) with the ‘efficient cause’ (*causa efficiens*). For the shift to the ‘efficient cause’ in the Hellenistic ages, see Frede 1980.

<sup>89</sup> Aristotle, *DA* III, ch. 4, 429a15; Boethius, *In Isag.*<sup>2</sup> 164.21–167.7.

is its matter.<sup>90</sup> Magee sees efficient causes in texts (ζ), (θ) and (ι),<sup>91</sup> but his arguments for this claim are not entirely convincing. He relies upon expressions such as ‘*venit ab*,’ ‘*ex*,’ and ‘*principia*,’ but these expressions possibly mean ‘formal causes’ as well as ‘efficient causes.’ In addition, Boethius suggests that the will (*voluntas*), not the intellect (*intellectus*), is primarily the efficient cause of spoken words (*voces*). We will see this later in our discussion (§ 5).

Moreover, spoken words presumably cause written words by providing them with syllables to be written down.<sup>92</sup> That is why Boethius says that written words are found because (*quoniam*) spoken words exist.<sup>93</sup> In Aristotelian term, a spoken utterance provides a ‘form’ for a written utterance. Hence, a spoken utterance and a written utterance share the same form, which consists of syllables, though they have different matters, i.e., vocal sounds and spots of ink, respectively. This is the answer to Kretzmann’s first question of whether there is something common between spoken and written speech (see § 2).

#### 4.3. Signification and Causation

Supposing that the ‘ordering of nature’ is ‘a causal order,’ one may object that the reversed order, which Boethius denies, is also possible and actually exists. Looking at typed scripts, an announcer reads the news

<sup>90</sup> Aristotle says that a vocal sound is the matter (ὑλη) of an utterance (λόγος) in *GA* V, ch. 7, 787b21–22. Ammonius makes similar claims in *In PH* 16.24–27 (with reference to the text of *GA*) and in *In PH* 22.27.

<sup>91</sup> Magee 1989: 80.

<sup>92</sup> The following text supports this interpretation by Ebbesen’s reading. *In PH*<sup>2</sup> 22.13–19: “Neque enim, quasi causa quaedam vocum est intellectus aut vox causa litterarum, ut cum eadem sint apud aliquos litterae, necesse sit eadem quoque esse nomina, ita quoque cum eadem sint vel res vel intellectus apud aliquos, mox necesse est intellectuum ipsorum vel rerum eadem esse vocabula.” Magee and Ebbesen read this sentence differently: “For a thought is not, as it were, the cause of spoken sounds, nor a spoken sound of written marks; [for it is *not* the case that:] just as when people have ‘the same’ written marks (and) it is necessary that the (spoken) names also be ‘the same,’ so too when they have either ‘the same’ things or ‘the same’ thoughts, it is therefore (*mox*) necessary that the words for these thoughts or things be ‘the same’” (Magee 1989: 77); “For the fact that the understanding is a sort of cause of the expressions (or the expression a cause of the letter-string) does not mean that, just as there must be the same names when people have the same letter-string, so there must straightaway be the same words for the understandings or realities when people have the same realities or understandings” (Ebbesen 1991: 151–152).

<sup>93</sup> *In PH*<sup>2</sup> 21.5–7: “Sed quoniam voces sunt, idcirco litterae, quas vocamus elementa, repertae sunt, quibus vocum qualitas designetur.”

aloud. Listening to a professor's talk, students understand his idea in their minds. In these cases, it is possible to say that written words 'cause' spoken words, and that spoken words 'cause' thoughts. It seems that 'cause' in these cases can be replaced with 'signify' (*significare*) in Boethius' term. In fact, Vincent Spade characterizes 'signification' as 'a species of causal relation' by quoting a sentence from Boethius' translation of *Peri hermeneias*:

Signification is a psychologico-causal property of terms—a fact responsible for many disagreements and tensions in medieval semantics. The main source for the notion of signification was Boethius' translation of *De interpretatione* 3, 16b19: '[Verbs] spoken in isolation are names and signify something. For he who speaks [them] establishes an understanding and he who hears [them] rests.' Hence 'to signify' something was 'to establish an understanding' of it. The psychological overtones of 'to signify' are similar to those of the modern 'to mean.' Nevertheless, signification is not meaning. A term signifies that of which it makes a person think, so that, unlike meaning, signification is a species of the causal relation.<sup>94</sup>

According to Spade's proposed 'psycho-epistemological criterion of signification',<sup>95</sup> when *x* signifies *y*, *x* establishes (or causes) an understanding of *y*.

One can avoid the objection that the reversed order is also possible by pointing out that the above-discussed causal relations, starting from things to written words, are prior to the 'psycho-causal relations' (= signification-relations) between them. According to Boethius, Alexander claims that "the cause (*momentum*) of signifying things (*significantes*) originates (*oritur*) in the things signified (*his quae significantur*)."<sup>96</sup> In

<sup>94</sup> Spade 1982: 188 (square brackets original). I will not make an issue of his claim "signification is not meaning," which one may find problematic. I assume he means by 'meaning' something similar to Fregean 'sense,' which is popularly understood as a collection of descriptions. As Spade himself points out in his web-published work (2002: 63), people think quite differently about what meaning is. It depends upon the definition of 'meaning' whether "signification is not meaning" is true.

<sup>95</sup> Spade 2002: 139 (Boethius' Latin translation mentioned by Spade is cited in note 115 of this chapter). It is formulated as "To Signify *x* <sub>df</sub> = to establish an understanding of *x*" (op. cit., 63), with a reference to Buridan's *Sophismata*, ch. 1, 15.22–24 = p. 22 (ed. Scott): "[Q]uia significare describitur quod est intellectum rei constituere; ideo vox dicitur illud significare cuius intellectum nobis constituit," which Spade claims to be influenced by Boethius' text. Spade says, "There was a great disagreement in the Middle Ages about *what* it is that linguistic units signify, but there was universal agreement over the defining criterion" (op. cit., 63).

<sup>96</sup> In *PH*<sup>2</sup> 26.10–11: "significantium momentum ex his quae significantur oritur." Boethius introduces this idea as Alexander's interpretation of why Aristotle mentions 'affections of the soul' in the beginning of *Peri hermeneias* (16a3–8). He regards

general, commentators including Boethius seem to take it for granted that a cause (*αἰτία/causa*) of signification is also an object of signification.<sup>97</sup>

Boethius' view of the relationship between signification and causation, which I call 'Boethius' second semantic principle' (BoSP<sub>2</sub>) can be summarized thus: Spoken words signify ( $\approx$  psycho-cause) thoughts because thoughts cause spoken words. Written words signify ( $\approx$  psycho-cause) spoken words because spoken words cause written words. In addition, it is possible to claim that thoughts signify ( $\approx$  psycho-cause) things because things cause thoughts. In texts cited above [(δ) and (ε)], Boethius suggests that things cause thoughts. In a few texts, he says that thoughts signify things.

A mediating thought of the mind signifies them [i.e., things].<sup>98</sup>

Thoughts are significative of nothing other than of things.<sup>99</sup>

The only thing to retain from all this is that the speech in letters signifies that which occurs in a vocal sound and that the speech of a vocal sound signifies (*designare*) the speech of the mind and the intellect, which is produced in silent thinking and that *this speech of the intellect in itself principally conceives and signifies (designare) the subject things*.<sup>100</sup>

As I have discussed in Chapter 1, Boethius claims that spoken words signify principally thoughts and secondarily things by the mediation of thoughts. So among written words, spoken words, thoughts and things, he proposes the four relations of signification:

(S-0) Written words signify spoken words.

(S-1) Spoken words (= x) signify thoughts (= y).

(S-2) Thoughts (= y) signify things (= z).

(S-3) Spoken words (= x) mediate things (= z).

---

Alexander's exposition as inadequate and prefers Porphyry's, but apparently he does not criticize Alexander's.

<sup>97</sup> See the sentence in Boethius' report on Alexander's interpretation cited above. Cf. Dexippus, *In Cat.* 7.16–18: "ὥστε δύναται μὲν καὶ τὰ πράγματα αἰτία εἶναι τοῦ λέγειν, οὐ μὴν αὐτὰ εἶναι τὰ λεγόμενα."

<sup>98</sup> *In PH*<sup>2</sup> 7.26–27: "eas [sc. res] medius animi significet intellectus" (This is part of the text cited on pp. 23–24).

<sup>99</sup> *In PH*<sup>2</sup> 24.14–15: "Intellectus vero ipsi nihil aliud nisi rerum significativi sunt."

<sup>100</sup> *In PH*<sup>2</sup> 24.21–27: "Hoc autem ex his omnibus solum cognosci oportet, quod ea quae sunt in litteris eam significant orationem quae in voce consistit et ea quae est vocis oratio quod animi atque intellectus orationem designet, quae tacita cogitatione conficitur, et quod haec intellectus oratio subiectas principaliter res sibi concipiat ac designet."

And I claim that they are the correlates of the four relations of causation among written words, spoken words, thoughts, and things:

- (Co) Spoken words cause written words.
- (C1) Thoughts cause spoken words.
- (C2) Things cause thoughts.
- (C3) Things mediately cause spoken words.

(S-2) seems to be a precondition for (S-3). In virtue of transitivity, *x* signifies *z* because *x* signifies *y* and *y* signifies *z* (*x* = spoken words, *y* = thoughts, *z* = things).<sup>101</sup> What does Boethius really mean by (S2) or saying that thoughts signify things? Hans Arens criticizes Boethius' use of 'signify' (*significare/designare*) in this way: "I doubt that Boethius has a clear conception of language and of what he is here writing about ... he does not really know what 'signify' means or, at least, is very careless in his expression."<sup>102</sup> Richard Gaskin says, "Perhaps Boethius erroneously supposes that a significative relation between language and the world can only be mediated by intentions if the relation between spoken language and intentions is also a significative one."<sup>103</sup> According to Gaskin's comment, Boethius affirms (S-2) because he wishes to endorse (S-3) as well as (S-1). But Boethius may endorse (S-2) more positively as if to say that a thought is a sign of a thing. He regards 'images' (*imagines*) conceived in the mind as 'notae' (marks) in a verse of his *Consolation of Philosophy*.<sup>104</sup> In his commentaries on *Peri hermeneias*, he regards both 'imaginations' (*imaginaciones*) and 'thoughts' as 'affections of the soul' (*passiones animae*) while he regards 'sensations' (*sensationes*) as 'affections of the body' (*passiones corporis*).<sup>105</sup> Hence, it may be conjectured, Boethius regards a thought (*intellectus*) also as a 'nota' (a mark or sign). In the later Middle Ages, Duns Scotus and William of Ockham claimed that concepts are natural signs whereas spoken and written words are conventional signs.<sup>106</sup> Fodor, in our day, claims that there must be 'mental symbols' if

<sup>101</sup> Magee's analysis runs as follows (1989: 71): "A *vox* signifies an *intellectus*; but an *intellectus* signifies a *res*; therefore, the *vox* also signifies, mediately, a *res*."

<sup>102</sup> Arens 1984: 215, n. 24.

<sup>103</sup> Gaskin 2001a: 229.

<sup>104</sup> CP V, m. iv, 151.35–40: "Tum mentis vigor excitus quas intus species tenet ad motus similes vocans notis applicat exteris introrsumque reconditis formis miscet imagines." In the poem, he criticizes the Stoics' epistemology at the end, but he seems to accept a part of their epistemological doctrine in his commentaries on *Peri hermeneias* and the *Consolation*.

<sup>105</sup> In PH<sup>2</sup> 27.20 and In PH<sup>2</sup> 27.25.

<sup>106</sup> E.g. Scotus, *Quaestiones in 1 PH*, q. 4, ad quaestionem, 68.13–17: "Ex hoc patet res et

LOT is true, because only symbols have syntax.<sup>107</sup> The merit of maintaining thoughts as natural signs or symbols is that it explains why thoughts are thoughts *about* things other than themselves or why thoughts represent things other than themselves. Those who have a concept of a horse know that it is a concept about the animal that they see in a zoo, at a horse race, and so on.<sup>108</sup> The function of a sign consists in showing or directing to something else: for instance, 'P' at the side of the road indicates a parking place nearby in the direction of travel. In virtue of this point, Fodor criticizes the classical mental representationalism of mental images or mental pictures and proposes his alternative, i.e., the mental representationalism of 'mental symbols.' Pictures look like the things that they are pictures of, but looking like the things cannot be a sufficient condition for referring to the things.<sup>109</sup> For those 14th century thinkers and Fodor, spoken words obtain a sign- or symbol-relation to things because there is already a sign- or symbol- relation between thoughts and things. In other words, the semantic relation between thoughts and things is prior to the semantic relation between spoken words and things. If Boethius means this by (S<sub>2</sub>), he endorses (S<sub>3</sub>) as a consequence of (S<sub>1</sub>) and (S<sub>2</sub>).

No matter how (S<sub>2</sub>) is understood, there is no doubt that the 'order of speaking' is based upon the fixed 'ordering of nature' or the order of causation. To summarize the 'order of speaking': written words signify spoken words, spoken words signify thoughts, and thoughts conceive and signify things, because things cause thoughts, thoughts cause spoken words, and spoken words cause written words.

---

passiones esse signa naturaliter, quia apud omnes uniformiter significant et significantur; et quod est a natura, est idem apud omnes. Littera autem et vox non sunt signa a natura, quia non eadem apud omnes sunt in quantum significant et significantur"; Ockham, *Quodl.* V, q. 8, conclusio 2, 510.65–68: "Et ideo multitudinem talium accidentium quae competunt nominibus synonymis non oportet tribuere naturalibus signis cuiusmodi sunt conceptus mentales"; Ockham, *SL* I, c.1, 8.46–49: "Una est quod conceptus seu passio animae naturaliter significat quidquid significat, terminus autem prolatus vel scriptus nihil significat nisi secundum voluntariam institutionem." As for Scotus, Perler (1993: 104) says, "It is important to note that the immediate significate [i.e., the species] is *necessarily* a sign; it must direct the intellect to the mediate, ultimate significate." As for Ockham, Adams (1978: 445) say that concepts are natural signs in the sense of being what 'causes something to be cognized' for the first time.

<sup>107</sup> Fodor 1987: 19.

<sup>108</sup> Boethius says that one who has an image (*imago*) in his mind knows what the image is about: "eius in animo quandam passus imaginem id cuius imaginem patitur agnoscit" (*In PH*<sup>2</sup> 35.5–6).

<sup>109</sup> Fodor 1975: 183.

I should note, however, the group of words called ‘empty names,’ which furnish exceptions to the correlations between the order of speaking and the order of causation. As I discussed in Chapter 1 (§ 5.1), empty names signify thoughts but not things. While fulfilling (So) and (S<sub>1</sub>), then, they do not satisfy (S<sub>3</sub>) and (S<sub>2</sub>), which is a precondition of (S<sub>3</sub>). On the other hand, Boethius would claim that even empty names satisfy every stage in the order of causation, namely from (Co) to (C<sub>3</sub>). We may not doubt that (Co) and (C<sub>1</sub>) apply to empty names, but may doubt whether (C<sub>2</sub>) and (C<sub>3</sub>) apply to them. The most problematic stage would be (C<sub>2</sub>), because (C<sub>2</sub>) is a precondition of (C<sub>3</sub>). The question arises whether thoughts of empty names have things as their causes. Boethius gives an affirmative answer to this question, for he says in his second commentary on *Isagoge*,

Every thought results either from the subject thing (i) as the thing is constituted itself or (ii) as the thing is not constituted itself—for a thought cannot result from no subject.<sup>110</sup>

He classifies thoughts into two kinds: (i) ones that conceptualize things as they are and (ii) ones that conceptualize things as they are not. He says that the latter kind of thoughts [(ii)] are obtained by ‘vacant imagination’ (*vacua imaginatio*) which depicts ‘a thing that does not exist’ (*id quod non est*) to the mind.<sup>111</sup> He characterizes these thoughts as ‘empty’ (*vana*).<sup>112</sup> Thoughts of empty names are, of course, of this kind. Indeed he says in his two commentaries on *Isagoge* that a thought of a centaur is made up through a conjunction of an image of a horse and an image of a man in the imagination.<sup>113</sup> Nevertheless, as is suggested in the passage cited above, this kind of thought—‘empty thought’—results from things just as other kinds of thoughts [(i)], which we may call ‘ordinary thoughts,’ do. Presumably a horse and a man cause a thought of a centaur.

Thus even empty names or thoughts of empty names satisfy (C<sub>2</sub>) and, therefore, (C<sub>3</sub>) as well, but not (S<sub>2</sub>) and (S<sub>3</sub>).<sup>114</sup> A man and a horse

---

<sup>110</sup> *In Isag.*<sup>2</sup> 163.7–10: “[O]mnis intellectus aut ex re fiat subiecta, ut sese res habet aut ut sese res non habet—nam ex nullo subiecto fieri intellectus non potest—.”

<sup>111</sup> *In Isag.*<sup>2</sup> 160.5.

<sup>112</sup> *In Isag.*<sup>2</sup> 163.16.

<sup>113</sup> *In Isag.*<sup>2</sup> 164.10–12: “[S]i quis equum atque hominem iungat imaginatione atque effigiet Centaurum.” See also *In Isag.*<sup>1</sup> 25.6–15.

<sup>114</sup> Ebbesen 1991: 151: “In fact, like other later ancient philosophers, Boethius tries to have the best of two worlds and leaves men free to have different stocks of concepts,



indirectly cause the word insofar as a thought of a centaur is never created without them, but the word ‘centaur’ does *not* signify a man and a horse.

#### 4.4. *The Order for a Speaker and a Listener*

Furthermore, Boethius explains the order of speaking in a phase of communication, introducing two different standpoints: (i) that of a speaker and (ii) that of a listener. There is no parallel explanation in his first commentary or in Ammonius’ commentary on *Peri hermeneias*. Aristotle briefly mentions the movement of the minds of a speaker and a listener in chapter 3 of *Peri hermeneias*.<sup>115</sup> This may have inspired Boethius to introduce these different standpoints. It is also quite likely that Augustine was another source of inspiration.<sup>116</sup> Boethius has already identified the two standpoints in the beginning of the explanation, i.e., in text (α), but he gives an account of how the order differs for these two standpoints:

One who teaches, speaks, and questions, going from things to a thought, exercise the force or the function of the proper action [of teaching, speaking, questioning] by nouns and verbs (they capture thoughts from these subject things and express (*pronunciant*) [them] by nouns and verbs). On the other hand, one who learns, who listens, or also who answers, progressing from nouns to thoughts, [finally] arrives at things. For, one who learns, who listens or who answers to a word (*sermo*) of a teacher or speaker or interrogator, understands what each of these people says, and through understanding [it], also grasps the knowledge of things and stays in the knowledge. Hence, it has been rightly said that those who learn, listen

---

words and written characters, while seeing the formation of concept, words and letters as steps in the natural articulation of reality. Moreover, he vacillates between taking all individual stocks of concepts to be subsets of the natural set of concepts reflecting what there is, so that there cannot be concepts of what there is not (chimeras), and treating such quasi-concepts on a par with real ones.”

<sup>115</sup> 16b19–21: “αὐτὰ μὲν οὖν καθ’ αὐτὰ λεγόμενα τὰ ὀνόματα ὀνόματά ἐστι καὶ σημαίνει τι,—ἴσῃσι γὰρ ὁ λέγων τὴν διάνοιαν, καὶ ὁ ἀκούσας ἡρέμησεν.” / 7.14–16: “Ipsa quidem secundum se dicta verba nomina sunt et significant aliquid—constituit enim qui dicit intellectum, et qui audit quiescit.” We see the expressions ‘*qui dicit*’ ‘*qui audit*’ in the quotation below (note 117).

<sup>116</sup> Several terms used by Boethius in the quotation below (note 117) recall *De magistro*, Augustine’s dialogue that discusses how teaching (*docere*) and learning (*discere*) are truly possible. The affinity of the two works is pointed out by Boschung (2006: 191–192). With a reference to the expression ‘*excitatur ad sciendum*’ (CP V, m. iv, 152.30 and pr. v, 152.4), Bermon (2007: 35) says that Boethius seems to know *De magistro*, but the text of the quotation below can be stronger evidence for Boethius’ acquaintance with the work.

or answer have an order contrary (*contrarie sese habere*) [to the order for those who teach, speak or interrogate] with respect to a spoken word, a thought and a thing.<sup>117</sup>

As a speaker, someone teaches, says something or asks a question. As a listener, someone hears something, understands and learns it. A speaker conceives some thoughts from things and expresses the thoughts in spoken words. Hence, the order in a speaker's side goes from things *via* thoughts to spoken words. A listener, on the other hand, catches thoughts from spoken words and understands things through the thoughts. Hence, the order in the listener's side goes from spoken words *via* thoughts to things. Thus the order for the speaker is exactly the reverse (*'conversim'*) of the listener's.<sup>118</sup> The former starts with cognition of things and ends with the signification of words while the latter starts with the signification of words and ends with cognition of things. The operation of their minds can be seen in the 'Boethian semantic triangle,' which I presented in Chapter 1 (§4.2). Both speaker and listener move through the same triangle in opposite directions.

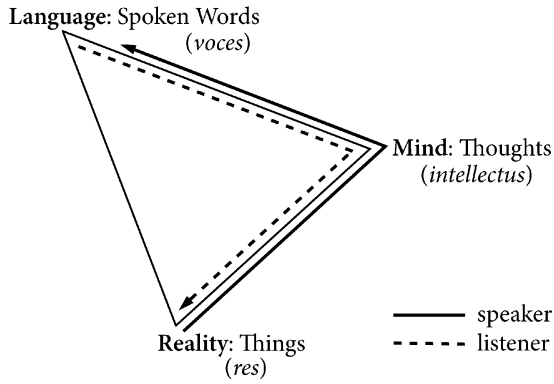
Boethius explains cases when communication about our experience of the world is made successfully, but the proposed framework of the two standpoints can also work to explain cases of miscommunication. Or we could say that it provides a clue to differentiate the speaker's meaning from the standard meaning or the listener's meaning.<sup>119</sup> In successful cases of linguistic communication, words, things and thoughts from the standpoint of the speaker are the same as those received in the listener. In unsuccessful cases or cases of deception, the words are the same, but the thoughts and things, namely the conceived meanings, are different for the speaker and the listener.

---

<sup>117</sup> In *PH*<sup>2</sup> 23.27–24.10: "Nam qui docet et qui dicit et qui interrogat a rebus ad intellectum profecti per nomina et verba vim propriae actionis exercent atque officium (rebus enim subiectis ab his capiunt intellectus et per nomina verbaque pronuntiant), qui vero discit vel qui audit vel etiam qui respondet a nominibus ad intellectus progressi ad res usque perveniunt. Accipiens enim is qui discit vel qui audit vel qui respondet docentis vel dicentis vel interrogantis sermonem, quid unusquisque illorum dicat intellegit et intellegens rerum quoque scientiam capit et in ea consistit. Recte igitur dictum est in voce, intellectu atque re contrarie sese habere eos qui discunt, audiunt et respondent."

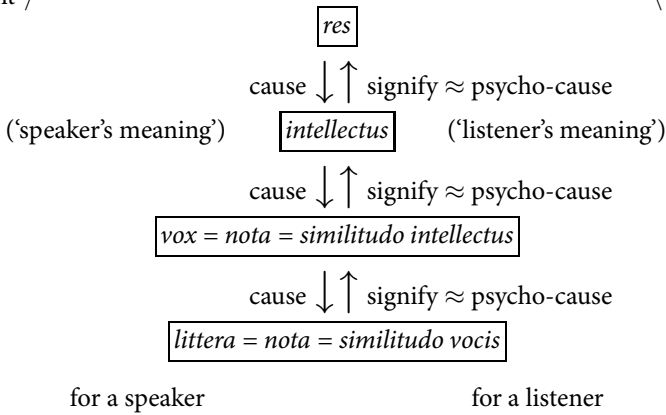
<sup>118</sup> In *PH*<sup>2</sup> 21.7.

<sup>119</sup> For discussions of 'speaker's meaning,' see Grice 1989. So-called 'double-*intellectus* theory' emerges in the 13th century. By '*intellectus secundus*' contrasted with '*intellectus primus*,' Robert Kilwardby and Roger Bacon seem to mean 'speaker's meaning.' For the double-*intellectus* theory, see Kneepkens 1985 and Rosier 1994: 46–48.



⟨'descent'⟩<sup>120</sup>

⟨'ascent'⟩



<sup>120</sup> Analyses and expressions of 'descent' vs 'ascent' come from Ebbesen 1991: 152. There is no explicit text in Boethius' works to support his analysis of Boethius' works, but see Ammonius, *In PH* 24.24–29. Ammonius says that things are derived from the divine, thoughts obtain their existences from intellects, and spoken words are brought by rational souls.

### 5. *Formations of Mental Speech and Spoken Speech*

From the above consideration, it is obvious that spoken words or vocal utterances are caused by thoughts or mental utterances. In the following passage, Boethius started explaining the process, from obtaining thoughts to expressing them. That is to say, he explains in detail the order of speaking at the standpoint of a speaker, i.e., the order starting from things and terminating at spoken words. The passage is difficult to understand both in grammar and in content, but it seems to describe an interesting feature in the formations of mental speech and spoken speech:<sup>121</sup>

When someone has experienced the property of a thing, which he grasps in the intellect, he seeks to enunciate (*enuntiatio*) and signify (*designatio*) the thing. For when one understands some thing, one must receive in the imagination the form and the property of the thing understood in the imagination, and then an affection or cognition (*perceptio*) of the intellect, along with some affection (*passio*), occurs. For when this [affection] has been placed and fixed in the seats of the mind, there arises the will (*voluntas*) to indicate the affection to someone else. Upon this there immediately supervenes a certain act of uninterrupted understanding (*continuanda intellegentia*) out of the potency (*potestas*) latent within reason (*ratio*);<sup>122</sup> this, of course, speech (*oratio*) explains (*explicat*) and pours forth (*effundit*), in reliance upon the affection that is based deep within the mind. Or more truly, signification progresses simultaneously with progressing speech and adjusts (*adequans*) itself to the motions of the signifying speech.<sup>123</sup>

<sup>121</sup> Arens (1984: 172, n. 1), Magee (1989: 120) and Marenbon (2003: 37) note the difficulty in understanding this text, but Magee and Marenbon pay special attention to this text. Tisserand (2008: 187–189) provides his translation and analysis of the most part of this text, with which following my analysis does not always agree.

<sup>122</sup> The ‘intellectual understanding’ (*intellegentia*) is no more than the intuition of the human intellect. The ‘*ratio*’ clearly means a rational part of the human soul, not reasoning itself or a part of the soul that is exclusively in charge of reasoning. As Magee (1989: 133–134) points out, there are some differences between Boethius’ uses of ‘*intellegentia*’ and ‘*ratio*’ in his commentaries on *Peri hermeneias* and those in his *Consolation of Philosophy*. In the *Consolation* (CP V, pr. iv, 149.83–88), ‘*intellegentia*’ is presented as a divine cognitive power far better than reason at seeing all the things at a grasp; ‘*ratio*’ signifies discursive reasoning.

<sup>123</sup> In *PH*<sup>2</sup> 33.33–34.13 (punctuation slightly altered from Meiser): “Passus enim quilibet eius rei proprietatem, quam intellectu complectitur, ad eius enuntiationem designationemque contendit. Cum enim quis aliquam rem intellegit, prius imaginatione formam necesse est intellectae rei proprietatemque suscipiat et fiat vel passio vel cum passione quadam intellectus perceptio. Hac vero posita atque in mentis sedibus conlocata fit indicandae ad alterum passionis voluntas, cui actus quidam continuandae intellegentiae pro-

Here, Boethius describes how we obtain thoughts. He claims that obtaining thoughts requires an experience of things and the reception of forms of things in the senses, in the imagination and finally in the intellect. He seems to omit the detail of the senses here, taking them for granted.<sup>124</sup> His explanation of the process is open to different interpretations. We can read this on an Aristotelian basis, as is suggested in his second commentary on *Isagoge*.<sup>125</sup> The mind is like a *tabula rasa* having no innate concepts.<sup>126</sup> The mind obtains incorporeal natures, i.e., concepts, from things outside the mind, separating incorporeal natures from matter, namely through 'abstraction'.<sup>127</sup> However, we can also read the text on a Platonic basis, as is suggested in *The Consolation of Philosophy*.<sup>128</sup> The mind has forms, i.e., concepts, within. The mind 'applies' (*applicat*) the forms and 'mixes' (*miscet*) them with mental images. This explanation has some affinity with the Platonic doctrine of recollection: the sense and the imagination serve for the mind as triggers to recollect the innate ideas.<sup>129</sup> The absence of his commentary on *De anima* makes it hard to

---

tinus ex intimae rationis potestate supervenit, quem scilicet explicat et effundit oratio, nitens ea quae primitus in mente fundata est passione, sive, quod est verius, significatione progressa oratio(ne) progrediente simul et significantis se orationis motibus adaequante."

<sup>124</sup> Boethius says that the sensory content (*sensus*) and the imagination are a sort of 'the first shapes' (*primae figurae*) in *In PH*<sup>2</sup> 28.28–29.2.

<sup>125</sup> *In Isag.*<sup>2</sup> 164.21–165.7: "Sed animus cum confusas res permixtasque in se a sensibus cepit, eas propria ui et cogitatione distinguit. Omnes enim huiusmodi res incorporeas in corporibus esse suum habentes sensus cum ipsis nobis corporibus tradit, at uero animus, cui potestas est et disiuncta componere et composita resolvere, quae a sensibus confusa et corporibus coniuncta traduntur, ita distinguit, ut incorpoream naturam per se ac sine corporibus in quibus est concreta, speculetur et uideat."

<sup>126</sup> Aristotle, *DA* III, ch. 4, 430a1. Boethius seems to know a great deal of *De anima*, but there is no explicit endorsement of this position in his works. In *CP* (V, m. iv, 151.1–9), he describes the mind as a blank tablet ('*tabula rasa*') in explaining the Stoic epistemological view that is to be criticized. His description in verse can be taken as rejection of this view of the mind but may be understood differently.

<sup>127</sup> Boethius is the first in the West who introduced the term 'abstraction' (*abstractio*) into epistemological context (*In Isag.*<sup>2</sup> 164.12; 166.3). The Greek counterpart of 'abstraction' is 'ἀφαίρεσις', which Aristotle uses in *PoA* I, ch. 18, 81b, but whether Aristotle ever gives the noun 'abstraction' to the process by which we grasp universals through sense experience is controversial. Recent Aristotelian scholarship holds a negative view on this question, for instance, Cleary 1985. As for the interpretation of Boethius' theory of 'abstraction', see De Libera 1999: ch. 2.

<sup>128</sup> *CP* V, m. iv and pr. v.

<sup>129</sup> Boethius presents the theory of recollection as quite promising in book 3 of the *Consolation of Philosophy*, m. xi, 91.15–16. As for Plato's theory of recollection, compare *Meno* 81c–86b with 98a and also see *Phaedo* 72e–76e. Cf. Fodor holds a strong innatist position of concepts, saying that even the concept of 'door-knob' is innate. For the innatist's argument, see Fodor 1981: 257–316 (briefly stated in Fodor 1998: 162).

reconstruct his psychological and epistemological doctrines.<sup>130</sup> He may have some idea to reconcile these two positions, for example, by combining Augustinian illumination theory with the theory of abstraction, that the mind separates incorporeal natures from corporeal things by looking at their exemplars in divine illumination. There is, however, no way to corroborate this guess and no proof that he believes that the two positions in his different works are compatible.

Let us come back to the text. A person somehow obtains a thought (*passio*) of the object 'x.' The thought is like an 'impression of some shape' (*figurae alicuius impressio*) in the mind,<sup>131</sup> presumably of a thing conceived by the mind. He wishes to indicate this thought of x to others, but how does he do so? Boethius claims that there arises the will (*voluntas*) to show the thought of x. As we have seen in Chapter 2, it is by will (*secundum voluntatem*) that spoken words are established. Then, he seems to offer two explanations. The first explanation says that there is a further act of the intellect (*'intellegentia'*) arising from 'the potency (*potestas*) latent within reason (*ratio*).'<sup>132</sup> This act of the intellect is a composition or division of thoughts while the preceding one is obtaining 'the first thought' (*πρῶτον νόημα/primus intellectus*).<sup>133</sup> By the first act of the intellect, x is apprehended (*'perceptio'*),<sup>133</sup> and a thought (*intellectus*) of x is obtained. The thought of x is articulated by the second act, i.e., composition or division. The second act is mental speech, i.e., inner speech. Vocal speech, i.e., outer speech, 'explains' and 'pours out' inner speech. According to the first explanation, it may appear that the process of understanding (i.e., 'inner speech') comes first and then the process of speaking (i.e., 'outer speech') follows. Outer speech, however, is not formed in such a way that it is pronounced only after inner speech has been completed. For outer speech, he says, 'explains' inner speech 'depending upon' 'the original affection,' i.e., 'the first thought.' Because of this function of outer speech, Boethius says that (outer) speech is "an interpreter (*interpretes*) of an opinion, a thought, or the affections of the

<sup>130</sup> There are some attempts at reconstruction: Gersh 1986, 2: 707–718; Magee 1989: 98 sqq.; O'Daly 1993; Tisserand 2008: 66–95.

<sup>131</sup> *In PH*<sup>2</sup> 34.13–15.

<sup>132</sup> *DA* III, ch. 8, 432a10–14. Boethius cites this text in *In PH*<sup>2</sup> 28.4–13.

<sup>133</sup> Cf. Cicero renders the Stoics' 'κατάληψις' (grasp) as '*perceptio*': "quid esset cognitio aut perceptio aut, si verbum e verbo volumus, comprehensio, quam κατάληψιν illi vocant" (*Acad.* II [17]).

soul.”<sup>134</sup> There is no composition and division in an opinion (*opinio*) or ‘the first thought’ itself,<sup>135</sup> but the mind articulates or interprets them and pours the results out with vocal sounds; outer speech, either spoken aloud or silently in the speaker’s mind, is present at the act of interpretation.<sup>136</sup> The second description of the process, which explains better (‘more truly’), indeed suggests more clearly that inner speech is accompanied by outer speech. He says that signification and speaking progress at the same time. As is discussed (§4.3), signification of *x* can be described as ‘establishing understanding of *x*.’ Thus the second explanation seems to say that the process of understanding and that of speaking occur simultaneously.<sup>137</sup> In other words, outer speech runs alongside inner speech.<sup>138</sup> Hence, inner speech is not necessarily formed before outer speech although the former is always causally prior to the latter.<sup>139</sup>

## 6. Conclusion

In this chapter, I have investigated Boethius’ doctrine of three types of speech with critical considerations of the past discussions made by Kretzmann and Magee.

Like Fodor’s LOT, Boethius’ mental speech has a language-like structure, i.e., compositionality, but does not belong to any particular natural language. All human beings share the universal capacity of thinking,

<sup>134</sup> *In PH* 75.16–19: “Nunc vero quoniam in intellectibus iunctis veritas et falsitas ponitur, oratio vero opinionis atque intellectus passionumque animae interpretis est.” Cf. Ammonius, *In PH* 5.18–19: “τὸ ἀποφαντικὸν ... ὡς ἐρμηνεύον τὴν γνώσιν τῆς ψυχῆς.” Note that it is possible to see the production of vocal speech from things via mental experience as a ‘descent’ (Ebbesen 1991: 152; see the diagram on page 107). Plotinus describes mental speech as an ‘interpreter’ (ἐρμηνεύς) of a higher *logos*, i.e., the Intellect (*Enneades* I 2, 3.27–30; for the Greek text, see note 65 of this chapter), and the emanation from the Intellect to mental speech is obviously a ‘descent’.

<sup>135</sup> For his explanation of ‘opinion’ (*opinio*), see *In PH* 45.32–46.12 (the text discussed in Chapter 1, §4.3, pp. 36–37).

<sup>136</sup> Aristotle indicates the connection between opinions and speech (*logos*) in *DA* III, ch. 3, 428a19–24.

<sup>137</sup> Cf. Marenbon 2003: 37: “Unfortunately, the text itself and the meaning are rather obscure, but the burden seems to be that the process of thinking and speaking are simultaneous.”

<sup>138</sup> I have borrowed this expression from Magee 1989: 120.

<sup>139</sup> The relationship between inner and outer acts of ‘speaking’ has characteristics similar to so-called ‘double activity’ (i.e., internal and external activity) in Plotinus’ theory of emanation. For the ‘double activity,’ see Emilsson 2007: 26 sqq.

which is why we can establish rational communication with those who speak different languages, as it assures the determinacy of translation.<sup>140</sup>

Boethius claims that written words signify spoken words, spoken words signify thoughts, and thoughts signify things because things cause thoughts, thoughts cause spoken words, and spoken words cause written words. Hence, the question of what causes spoken words shares the same answer as the question discussed in Chapter 1, i.e., what spoken words signify, namely, immediately thoughts and mediately things.

Mental speech is a cause of spoken speech, and spoken speech is a cause of written speech. Unlike our modern notions of causality, causal priority does not imply temporal priority.<sup>141</sup> Boethius suggests that mental speech and spoken speech are sometimes formed at the same time.

This series of interpretations of mental speech and causation back up the results of my lexical surveys in the previous chapter. Mental speech, which is a composite of thoughts, brings its likeness (*similitudo*) into spoken speech ('*notae*') as its cause, just as a foot leaves its likenesses, i.e., footprints ('*notae*') on grounds.<sup>142</sup> Just as a foot never makes a footprint while a person sleeps in bed, spoken speech does not spring from mental speech automatically. Mental speech is a formal cause of spoken speech, and the will intervenes as its efficient cause. Presumably the will also chooses to follow a particular linguistic convention (e.g., a language or way of speaking) in bringing forth spoken speech. That is why spoken words ('*notae*') are established by will and convention (*secundum placitum voluntatemque*).<sup>143</sup> Once spoken, words brought forth by the speaker, become intelligible signs ('*notae*') for the listener that cause understanding (*intellegere*) of the thought and the thing conceptualized by the speaker.<sup>144</sup>

---

<sup>140</sup> This way of thinking is challenged in chapter 2 of Willard Quine's *Word and Object*. According to Quine's thesis about the indeterminacy of translation, there can be more than two different translation manuals of one language into another. Based on the manuals, the same word or the same sentence in one language is translated into words or sentences in another language, which are totally different and incompatible with each other. For example, a person saying 'gavagai' while pointing out a running rabbit could be translated as 'a rabbit' or 'a movement of an animal.'

<sup>141</sup> With regard to Aristotle's four causes, Ross (1964: 72) notes that "actual and individual causes are simultaneous in origin and in cessation with their effects; potential causes are not."

<sup>142</sup> Recall Chapter 2, § 3.6.

<sup>143</sup> Recall Chapter 2, § 3.5.

<sup>144</sup> Recall Chapter 2, § 3.4.



As for mental speech, I have discussed specifically how a noun-verb distinction is found in thoughts. I claimed that Boethius uses the mental noun-verb distinction to explain the compositionality of thoughts. Mental words, however, suffice to explain compositionality. A thought of 'man' and a thought of 'dog' make a composite thought of 'a man and a dog.' Therefore, the ultimate answer to the question of what Boethius means by 'mental noun' and 'mental verb' requires the knowledge of how he distinguishes verbs from nouns. I have not yet explained his definitions of a noun and a verb, setting aside whether the noun-verb distinction is no more than a syntactic or grammatical distinction. In the next chapter, I will furnish a consideration of his noun-verb distinction.

There are further philosophical issues to be assessed: Does he make a clear distinction between logic and grammar or conflate them? If he makes a clear distinction, how does he make it? I shall consider these issues in the next two chapters.



PART TWO

BOETHIUS ON LOGIC AND GRAMMAR



## CHAPTER FOUR

### NOUNS, VERBS, AND CONJUNCTIONS

#### 1. *Introduction*

In commenting on Aristotle's chapter 3, John Ackrill argues that Aristotle confuses logic with grammar:

It may disturb us to find Aristotle saying that a statement consists of a name and a verb, because this terminology suggests a confusion of logical with grammatical analysis. But this is not a confusion imported by the translation; logic and grammar are, in fact, not clearly distinguished in Aristotle's discussion.<sup>1</sup>

Akrill recognizes that Aristotle is not interested in a purely grammatical classification,<sup>2</sup> but believes that the lack of a clear distinction between logical and grammatical analyses is a source of trouble in Aristotle's logic.<sup>3</sup>

We can confirm that Boethius places Aristotle's *Peri hermeneias* and his commentaries on it in the field of logic. In chapter 1 (16a8–9) of the work, Aristotle sets some matters aside, placing them beyond the scope of the subject at hand, and reserving them for another work on the soul. In commenting on that passage, Boethius claims that primarily discussing thoughts (*intellectus*) in the soul and discussing them insofar as they pertain to logical knowledge are different.<sup>4</sup> Thus he holds the subject in discussion of the work to be logic.

Like Aristotle, Boethius relies heavily upon the name/noun (*nomen*) and the verb (*verbum*) in his discussion. It is even possible to say that Boethius relies more on the noun-verb distinction than Aristotle does in introducing it into the realm of mental language.<sup>5</sup> In Part 1, I discussed

---

<sup>1</sup> Ackrill 1963: 118.

<sup>2</sup> Ackrill 1963: 118. Ackrill claims this because Aristotle does not count all cases of nouns as nouns (*PH*, ch. 2, 16a32–16b5).

<sup>3</sup> Ackrill 1963: 120.

<sup>4</sup> In *PH*<sup>1</sup> 41.11–14: "Etenim aliud est principaliter de intellectibus animae disputare, aliud tantum sibi disputationem sumere, quantum ad logicae posit pertinere peritiam."

<sup>5</sup> In *PH*<sup>2</sup> 30.6–10. See the discussion in the previous chapter.

the signification of spoken words (*voces*) in general, mainly following Boethius' comments on Aristotle's chapter 1. To be accurate, however, the 'spoken words' whose signification I have discussed so far are principally spoken nouns and verbs and sentences composed of nouns and verbs. Boethius takes 'spoken sounds' (τὰ ἐν τῇ φωνῇ/*ea quae sunt in voce*) at the beginning of Aristotle's *Peri hermeneias* (16a3) to be 'spoken nouns and spoken verbs'.<sup>6</sup> Boethius often mentions '(spoken) nouns and verbs' alongside the expression 'spoken words' (*voces*) as though they were equivalent.

Moreover, his writings, including his commentaries on *Peri hermeneias*, show that Boethius has learned the grammatical concepts of his predecessors. After Aristotle, the Stoics and the Alexandrians, especially Apollonius Dyscolus, greatly developed grammatical studies of language.<sup>7</sup> Latin grammarians such as Donatus and Priscian took up the development of Greek grammar.<sup>8</sup> Boethius uses some of the distinctions made by the Stoics and the grammarians. For instance, as a sub-class of names/nouns, he introduces the distinction between 'proper name/noun' (*nomen proprium*) and 'common name/noun' (*nomen appellativum*),<sup>9</sup> which is first made by the Stoics and then by grammarians.<sup>10</sup> He mentions '*monoptota*',<sup>11</sup> a technical term introduced by grammarians for nouns that have one case-ending.<sup>12</sup> His use of these grammarians' technical

<sup>6</sup> In *PH*<sup>2</sup> 30.29–30: "Sunt ergo ea quae sunt in voce, subaudiendum est verba et nomina."

<sup>7</sup> For a brief overview of the development, see Frede 1977 and 1978; Robins 1951: ch. 1 and 1997: ch. 2; Taylor 1987a; Law 2003: ch. 4; Blank and Atherton 2003; Ildefonse 1997.

<sup>8</sup> See Robins 1951: ch. 1 and 1997: ch. 3; Baratin 1989; Luhtala 2005.

<sup>9</sup> In *PH*<sup>2</sup> 61.31–32. Examples of proper names are 'Plato' 'Aristotle' and 'Boethius.' Examples of common/appellative names are 'man' and 'horse.'

<sup>10</sup> 'A common or appellative name/noun' (προσηγορία) is found in DL VII 58 = LS 33M; Dionysius Thrax, *Ars grammatica* § 11, 23.2; Apollonius Dyscolus, *De constructione* I, § 31, 29.4–5. We will also find the distinction in Donatus' definition of a noun in § 2 of this chapter.

<sup>11</sup> In *PH*<sup>2</sup> 15.7; *De cat. syll.* 13.11 = 797a; *Introd. cat. syll.* 18.5 = 766b ('*aptota*'). Cf. Porphyry, *In Cat.* 62. 4 (τὰ μονόπτωτα).

<sup>12</sup> According to Lewis & Short's Latin dictionary, Diomedes, Martinus Capella and Priscian use '*monoptota*.' In Capella's influential *Marriage of Philology and Mercury*, '*monoptota*' and '*monoptoton*' are found several times in book 3 on grammar ([242] 65.18; [291] 82.19; [294] 85.1; [305] 92.3). As for Capella's influence on Boethius, Courcelle (1967: 17) says that Boethius certainly knows the work, and Magee (1989: 65) says that book 4 of *The Marriage* was undoubtedly available to Boethius. Moreover, Courcelle (1967: 17) claims the Boethius uses this work in writing the *Consolation of Philosophy*, and Marenbon (2003: 13) says that the literary form of *The Marriage* influences that of the *Consolation*. On the other hand, Stahl, Johnson, and Burge's introduction to their English

expressions together with his heavy use of the noun-verb distinction may appear to prove that Ackrill's criticism of the confusion between logic and grammar holds for Boethius much more than for Aristotle.

Boethius, however, sometimes contrasts his views with those of grammarians. He claims that a grammarian regards 'garalus' (which is not a real Latin word) as a noun but a philosopher does not.<sup>13</sup> He also claims that a grammarian counts eight parts of speech, i.e., noun, pronoun, verb, adverb, participle, conjunction, preposition and interjection while a philosopher counts only two, that is, the noun and verb.<sup>14</sup> He never actually names any grammarians in his discussions,<sup>15</sup> but calls those who disagree with philosophers, 'grammarians'.<sup>16</sup>

We can find the names of Aristarchus and Donatus in his commentary on *Categories*,<sup>17</sup> but he says nothing about their grammatical theories. Explaining Aristotle's words "the grammarian (γραμματικὸς) gets his name from grammar (γραμματική)," he just mentions their names as examples of 'a grammarian,' which is a paronym of 'grammar' (*grammatica*).<sup>19</sup> His access to Priscian's works has been once claimed,<sup>20</sup> but

---

translation of this work says, "Although Boethius is naturally associated with Martianus for having influential medieval allegory and chantefable, there is little prospect of finding definite traces of Martianus' influence upon Boethius" (1971: 57).

<sup>13</sup> *In PH*<sup>2</sup> 32.17–22.

<sup>14</sup> *Introd. cat. syll.* 17.9–18.19 = 766a–b; *De cat. syll.* 12.14–13.8 = 796c–797d.

<sup>15</sup> Later (§ 2.3) we will see that Boethius' statement on grammarians cannot be taken as an accurate description of what they are doing. That is probably the reason why Boethius does not give specific names despite the fact that he knows some of their works, at least Donatus.

<sup>16</sup> Note that a 'grammarian' (*grammaticus*) was a scholar engaged in studies broader than grammar in the modern sense and which included poetry. Quintilian says in *Inst.* I, c.4 [1]: "Primus in eo qui scribendi legendique adeptus erit facultatem, grammaticis est locus. Nec refert de Graeco an de Latino loquar, quamquam Graecum esse priorem placet: utrique eadem via est. Haec igitur professio, cum brevissime in duas partis dividatur, recte loquendi scientiam et poetarum enarrationem, plus habet in recessu quam fronte promittit." For details on what a 'grammarian' stands for in late antiquity, see the appendices of Kaster 1988: 443–454.

<sup>17</sup> Aristarchus: *In Cat.* 171d, 182c, 189c, 260a. Donatus: *In Cat.* 257d.

<sup>18</sup> *Cat.* ch. 1, 1a14: "ἀπὸ τῆς γραμματικῆς ὁ γραμματικὸς προσηγορίαν ἔχει." / 5.15–17: "[A] grammatica grammaticus [habet appellationem]."

<sup>19</sup> Boethius translates 'paronym' (παράωνυμον) as 'denominative' (*denominativum*). He says that a 'denominative' cannot exist without the participation of a thing (*In Cat.* 168b). By virtue of this explanation, the 'denominative' stands at the crossroads of Platonism and Aristotelianism. For the history and analysis, see De Libera 1996b and Ebbesen 1988.

<sup>20</sup> Kirkby 1981: 59. The fact that Symmachus, Boethius' father in law, commissioned three works to Priscian and Priscian dedicated the three short treatises to him is a possible reason for this claim.

we cannot find the name of Priscian nor Priscian's definite influence on Boethius' thought. Compared with the intense interest in the influence of Neoplatonists and the Stoics on Boethius, the influence of the grammarians on Boethius' thought has been rarely assessed.<sup>21</sup>

In this and the next chapters, I will consider the relation between logic and grammar in Boethius.<sup>22</sup> In this chapter, I will look at his division of parts of speech and his explanations of the noun, verb and conjunction. In the next chapter, I will look at his way of defining 'speech' and 'one sentence.' The result of these considerations will show that Boethius does not conflate logic with grammar. In addition, they will show how his definitions of these linguistic items differ from our common-sense notions and the then-current grammatical definitions of them.

## 2. *Parts of Speech*

### 2.1. *The Historical Background: From Plato to Donatus*

To begin, I will analyze Boethius' view on parts of speech, where he unabashedly contrasts his view with a grammarian's. In *Introduction to Categorical Syllogisms*, he says, "On any part of speech, a grammarian and a dialectician should investigate differently, just as a mathematician and a physicist do not discuss a line or a surface in the same manner."<sup>23</sup> Boethius differs from grammarians not only in the number of the parts of speech, but also in the manner of seeing each part of speech. Later we will see how they differ. Before going into the details of Boethius' view, I would like to take a brief look at the historical background of the notion of 'parts of speech' (μέρη λόγου/*partes orationis*). This notion, though it is not called as such, can be traced back to Plato's

---

<sup>21</sup> Berka (1968: 454) points out three major influences on Boethius' semantics: (1) Aristotle, (2) the Stoics and (3) the Roman grammarians, but he discusses nothing specific about (3). Notes in Thörnqvist 2008b can be helpful for further research.

<sup>22</sup> Concerning this problem, Magee (1986: 83–102) and Ebbesen (2003) provide some helpful discussions.

<sup>23</sup> *Introd. cat. syll.* 7.3–5 = 762c: "Aliter enim de qualibet orationis parte grammatico, aliter dialectico disserendum est nec eodem modo lineam uel superficiem mathematicus ac physicus tractant." In showing his own position, Boethius says 'a dialectician' or 'a philosopher.' He would not call himself 'a logician' (*logicus*) probably because 'a logician' could mean, in his time, a medical doctor. See '*logicus*' sc. *medicus* in the entry of '*logicus*' in *Thesaurus linguae latinae* and '*logici*' in the entry of '*logicus*' in *Lewis & Short's Latin Dictionary*.



*Sophist* (261e–262e), where he suggests that speech (λόγος) is made up of nouns (ὀνοματὰ) and verbs (ῥήματα). Aristotle's way of defining noun, verb, and speech suggests that he agrees with Plato, but his description in chapter 20 of *Poetics* (1456b20–21) can be taken differently. In *Poetics*, Aristotle mentions eight parts of locution (λέξις): noun, verb, article (ἄρθρον), conjunction (σύνδεσμος), letter (στοιχείον), syllable (συλλαβή), case (πτῶσις), and speech (λόγος).<sup>24</sup> His enumeration can be taken as an endorsement of the article and the conjunction as parts of speech together with the noun and the verb. A Stoic philosopher, Diogenes of Babylon, is reported to have virtually claimed the common noun to be the fifth part of speech, dividing the class of the noun into common and proper nouns.<sup>25</sup> Greek grammarians first formulate eight parts of speech: noun, verb, participle, article, pronoun, preposition, adverb, and conjunction,<sup>26</sup> placing the common noun in a sub-class of the noun. As for the Latin grammatical tradition, Varro lists four parts of speech in *De lingua latina*: 'a part that has a case but not a tense,' 'a part that has a tense but not a case,' 'a part that has neither of them,' and 'a part that has both of them.'<sup>27</sup> Latin grammarians, at least after Palaemon,<sup>28</sup> basically accepted the eight parts of speech, except that they eliminated the article from the list and replaced it with the interjection, which the Greek grammarians had placed under the adverb.<sup>29</sup> The fact that Latin lacks articles ('a man' and 'the man' are spoken and described indifferently in Latin as 'homo') explains the difference between the Greek and Latin grammarians.<sup>30</sup> Hence, the Latin grammarians formulate eight parts of speech as the following: noun, verb, participle, pronoun, preposition, adverb, interjection, and conjunction.<sup>31</sup> In *Ars minor*, Donatus defines the eight parts of speech as follows:

<sup>24</sup> Boethius has accurate knowledge of Aristotle's statement in *Poetics* (*In PH*<sup>2</sup> 8.7–11).

<sup>25</sup> DL VII 58 = LS 33M.

<sup>26</sup> Dionysius Thrax, *Ars grammatica*, § 11, 23.1–3; Apollonius Dyscolus, *De constructione* I, §§ 13–29, 15.6–27.16.

<sup>27</sup> *De lingua latina* VIII, § 44, 179.12–15 and X, § 17, 242.11–16.

<sup>28</sup> Quintilian testifies that Palaemon lists eight parts of speech: "Alii tamen ex idoneis dumtaxat auctoribus octo partes secuti sunt ut Aristarchus et aetate nostra Palaemon" (*Inst.* I, c.4 [20]).

<sup>29</sup> Dionysius Thrax, *Ars grammatica*, § 19, 77.1; § 19, 80.1.

<sup>30</sup> This explanation is taken by Quintilian (*Inst.* I, c.4 [19]).

<sup>31</sup> Quintilian, *Inst.* I, c.4 [20]; Donatus, *Ars minor* 585.4–5 = 355.2–3; *Ars maior* 613.3–4 = 372.25–26.

- [1] Noun: A part of speech, which signifies with the case a body (*corpus*) or a thing specifically (*proprie*) or generally (*communiter*).<sup>32</sup>
- [2] Pronoun: A part of speech, which is often used in place of a noun and sometimes refers to a person [previously mentioned].<sup>33</sup>
- [3] Verb: A part of speech, with tense (*tempore*) and person, without case, signifying 'to perform (*agere*) something' or 'to suffer' (*pati*) or neither.<sup>34</sup>
- [4] Adverb: A part of speech, which, added to a verb, explains the signification of it and completes it.<sup>35</sup>
- [5] Participle: A part of speech, taking a part of the noun and a part of the verb: of the noun, taking the genders (*genera*) and cases; of the verb, tenses and significations; of both the number and the form (*figura*).<sup>36</sup>
- [6] Conjunction: A part of speech which binds together a meaning (*sententia*) and organizes it.<sup>37</sup>
- [7] Preposition: A part of speech, placed before other parts of speech, completes their signification, alters it or diminishes it.<sup>38</sup>

<sup>32</sup> *Ars minor* 585.7–8 = 355.5–6: "Pars orationis cum casu corpus aut rem proprie communiterue significans." Cf. Priscian, *Inst.* II, 56.29–57.1: "Nomen est pars orationis, quae unicuique subiectorum corporum seu rerum communem vel propriam qualitatem distribuit."

<sup>33</sup> *Op. cit.*, 588.2–3 = 357.2–3: "Pars orationis, quae pro nomine posita tantundem paene significat personamque interdum recipit." Cf. Priscian, *Inst.* XII, 577.2–3: "Pronomen est pars orationis, quae pro nomine proprio uniuscuiusque accipitur personamque finitas recipit."

<sup>34</sup> *Op. cit.*, 591.6–7 = 359.4–5: "Pars orationis cum tempore et persona sine casu aut agere aliquid aut pati aut neutrum significans." Cf. Priscian, *Inst.* VIII, 369.2–3: "Verbum est pars orationis cum temporibus et modis, sine casu, agendi vel patiendi significativum."

<sup>35</sup> *Op. cit.*, 595.25–26 = 362.15–16: "Pars orationis, quae adiecta uerbo significationem eius explanat atque inplet." Cf. Priscian, *Inst.* XV, 60.2–3: "Adverbium est pars orationis indeclinabilis, cuius significatio verbis adicitur."

<sup>36</sup> *Op. cit.*, 597.5–6 = 363.13–15: "Pars orationis partem capiens nominis, partem uerbi: nominis genera et casus, uerbi tempora et significationes, utriusque numerum et figuram." Cf. Priscian, *Inst.* XI, 552.18–20: "Participium est igitur pars orationis, quae pro uerbo accipitur, ex quo et derivatur naturaliter, genus et casum habens ad similitudinem nominis et accidentia uerbo absque discretionem personarum et modorum."

<sup>37</sup> *Op. cit.*, 599.13 = 364.33: "Pars orationis adnectens ordinansque sententiam." Cf. Priscian, *Inst.* XVI, 93.1–6: "Coniunctio est pars orationis indeclinabilis, coniunctiva aliarum partium orationis, quibus consignificat, vim vel ordinationem demonstrans: vim, quando simul esse res aliquas significat, ut 'et pius et fortis fuit Aeneas'; ordinem, quando consequentiam aliquarum demonstrat rerum, ut 'si ambulat, movetur.'"

<sup>38</sup> *Op. cit.*, 600.8–9 = 365.10–11: "Pars orationis, quae praeposita aliis partibus orationis significationem earum aut completet aut mutat aut minuit." Cf. Priscian, *Inst.* XIII, 24.13–14: "Est igitur praepositio pars orationis indeclinabilis, quae praepositur aliis partibus vel appositione vel coinpositione."

- [8] Interjection: A part of speech, signifying an affection of the mind in a disordered vocal sound.<sup>39</sup>

With a basic knowledge of Latin grammar, we can understand most parts of these definitions, though some parts are difficult. It would take too much space to analyze all of these definitions closely and this subject is best left to scholars of Latin grammar, so I will focus on the definitions of the noun and verb, which both Boethius and Donatus regard as ‘parts of speech.’

A noun signifies with a case—nominative, genitive, dative, accusative, ablative and vocative—because a noun in Latin takes a case, depending on its function in the sentence. A noun signifies a thing specifically (*proprie*) if it is a proper noun (e.g., ‘Socrates’), and signifies one generally (*communiter*) if it is a common noun (e.g., ‘man’).

A verb signifies with tense, because a verb in Latin takes either the present, past, or future tense.<sup>40</sup> A verb signifies with a person, because a verb in Latin is inflected according to the subject, showing whether it is the first person (e.g., ‘lego’ = ‘I read’), or the second person (e.g., ‘legis’ = ‘you read’) or the third person (e.g., ‘legit’ = ‘she, he, or it reads’). Donatus does not explain the remaining part of the definition [3], that is, ‘signifying (i) to perform something or (ii) to suffer or (iii) neither.’ In *Ars maior*, he calls ‘active,’ ‘passive,’ ‘neutral,’ ‘deponent’ and ‘common’ ‘the genera of verbs,’ adding that others call a genus of a verb ‘signification.’<sup>41</sup> We use the terms ‘active’ ‘passive’ and ‘deponent’ in current Latin grammar, so I’ll skip examples of these. Examples of neutral verbs are ‘sto’ (= ‘I stand still’) and ‘curro’ (= ‘I run’).<sup>42</sup> An example of a common verb is ‘crimino’ (= ‘I accuse’ or ‘I am accused’).<sup>43</sup> He classifies the genera according to the inflection-rules that govern changes between genera. For instance, he says, an active verb is one that terminates in the letter ‘o’ and needs the letter ‘r’ on its end to be a passive verb. To give an example, the active verb ‘amo’ (= ‘I love’) ends in ‘o’ and the passive verb ‘amatur’ (= ‘I am loved’) ends in ‘r.’ Since there are five genera and there are three kinds of

<sup>39</sup> Op. cit., 602.2–3 = 366.13–14: “Pars orationis significans mentis affectum uoce incondita.” Cf. Priscian, *Inst.* XV, 90.9–12: “Romanarum artium scriptores separatim hanc partem ab adverbii accipere, quia videtur affectum habere in se verbi et plenam motus animi significationem, etiamsi non addatur verbum, demonstrare.”

<sup>40</sup> The past tense has three sub-divisions: imperfect, perfect and pluperfect. *Ars maior* 637.13–14 = 384.11–13; *Ars minor* 593.9–10 = 360.11–13.

<sup>41</sup> *Ars maior* 635.5–6 = 383.1.

<sup>42</sup> *Ars minor* 592.19–20 = 359.37–360.2.

<sup>43</sup> *Ars minor* 593.1–3 = 360.4–6.

signification in his definition [3], we cannot simply identify the genera with the different contents of signification. But we could say that Donatus sees some correspondence between the genus of a verb, which is determined by the inflection-rule, and the content of signification. Active and passive verbs signify some action and passion, and a neutral verb signifies a state that is neither of them.<sup>44</sup>

## 2.2. Boethius' Division

We will find the eight parts of speech in Boethius' second commentary on *Peri hermeneias*:

Here is a question: why does he [Aristotle] promise to define only the two, the noun and the verb, even though there seems to be numerous parts of speech? Concerning which, we should say this: Aristotle defined them in this work only insofar as for what he set out to discuss sufficed. He discusses the simple declarative sentence (*simplex enuntiativa oratio*), namely the one that is composed only of verbs and nouns joined together. For if anyone combines a noun and a verb, and says, so as to say "Socrates walks," he has made a simple declarative sentence. For a declarative sentence (as I have mentioned above) is that which has within it signification (*designatio*) of the false and the true. In our saying "Socrates walks," it is necessary that either truth or falsity be contained. For if this is said when Socrates is walking, it is true, and if it is said when Socrates is not walking, it is false. A simple declarative sentence, then, is formed only from verbs and nouns, and that is why it is unnecessary to ask why he did not mention others that also seem to be parts of speech: he did not set out to divide up the elements of discourse (*oratio*) as a whole, without qualification, but only those of simple enunciation although the parts of speech, in the strict sense, must be said to be two, namely the noun and the verb. For both of these signify by themselves, while conjunctions or prepositions do not signify (*designant*) anything at all except when combined with others. Participles are akin to the verb in nature either because they come from the gerundive mode, or because they embrace time in their proper signification. But we should place interjections, pronouns and adverbs in the place of the noun, because they signify something definite where there is no signification of a passion or an action. But if some of these cannot be inflected in cases, it does not prevent them [from being taken as nouns], but there are some nouns that are called '*monoptota*.'<sup>45</sup>

<sup>44</sup> Martianus Capella (*De nuptiis philologiae et mercurii* III [309] 94.309–310) shows an interpretation of the relationship between the genera of verbs and significations, saying that the active verb signifies an action, the passive verb signifies a passion, and the neutral verb signifies neither a complete action nor a complete passion.

<sup>45</sup> In *PH*<sup>2</sup> 14.9–15.7: "Exsistit hic quaedam quaestio cur duo tantum nomen et verbum se determinare promittat, cum plures partes orationis esse videantur. Quibus hoc

Boethius starts with the question of why Aristotle mentions only the noun and the verb and does not mention other parts of speech. His first answer to the question is, in short, that the subject of this work, i.e., *Peri hermeneias*, does not require discussing the others. The subject of this work is the ‘simple declarative sentence’ (*oratio enuntiativa simplex*), which is a proposition composed of nouns and verbs.<sup>46</sup> Hence, Aristotle does not have to discuss anything other than the noun and the verb.<sup>47</sup>

Boethius does not stop at this satisfactory answer but provides more explanations. He claims that only the noun and the verb are ‘parts of speech,’ properly speaking.<sup>48</sup> As for other parts of speech, which he cautiously describes as “others that seem (*videntur*) to be parts of speech,” his description in the commentary is not as clear as in his monographs

---

dicendum est tantum Aristotelem hoc libro definisse, quantum illi ad id quod instituerat tractare sufficit. Tractat namque de simplici enuntiativa oratione, quae scilicet huiusmodi est, ut iunctis tantum verbis et nominibus componatur. Si quis enim nomen iungat et verbum, ut dicat Socrates ambulat, simplicem fecit enuntiativam orationem. Enuntiativa namque oratio est (ut supra memoravi) quae habet in se falsi verique designationem. Sed in hoc quod dicimus Socrates ambulat aut veritas necesse est contineatur aut falsitas. Hoc enim si ambulante Socrate dicitur, verum est, si non ambulante, falsum. Perficitur ergo enuntiativa oratio simplex ex solis verbis atque nominibus. Quare superfluum est quaerere, cur alias quoque quae videntur orationis partes non proposuerit, qui non totius simpliciter orationis, sed tantum simplicis enuntiationis instituit elementa partiri. Quamquam duae propriae partes orationis esse dicendae sint, nomen scilicet atque verbum. Haec enim per sese utraque significant, coniunctiones autem vel praepositiones nihil omnino nisi cum aliis iunctae designant; participia verbo cognata sunt, vel quod a gerundivo modo veniant vel quod tempus propria significatione contineant; interiectiones vero atque pronomina nec non adverbia in nominis loco ponenda sunt, idcirco quod aliquid significant definitum, ubi nulla est vel passionis significatio vel actionis. Quod si casibus horum quaedam flecti non possunt, nihil inpedit. Sunt enim quaedam nomina quae monoptota nominantur.”

<sup>46</sup> I set aside an explanation of the simple declarative sentence until the next chapter.

<sup>47</sup> Ammonius (*In PH* 11.1–7) gives a similar explanation.

<sup>48</sup> This claim, which was popular among commentators, is called ‘the Peripatetics’ view’ of parts of speech by Nuchelmans (1973: 96), but the same view is held to be the Platonic position in Plutarch’s *Platonicae quaestiones*, q. 10 (esp., see §8, 153.3–8). Ammonius (*In PH* 12.24–13.17) and Porphyry, as presented in Simplicius’ commentary on *Categories* (*In Cat.* 10.23–25), support this view (for the Greek commentators’ view of parts of speech, see Hoffmann 1999). Apuleius’ *Peri hermeneias* also introduces this view (*PH* IV 192.1–6). This work, which is a short treatise on some subjects discussed in Aristotle’s *Peri hermeneias*, was once claimed to have influenced Boethius (Sullivan 1960: 209–227). Many differences between them (see notes 50 and 150 of this chapter), however, would not support this claim. Thörnqvist (2008a: xxv–xxvi, n. 53) discusses objections to Boethius’ dependence on Apuleius.

on logic,<sup>49</sup> but he claims that they are either reduced to the categories of noun or verb or they are placed outside the categories of parts of speech.<sup>50</sup> The conjunction and the preposition are not parts of speech, but rather ‘supplements (*supplementa*) of speech.’<sup>51</sup> In *On Categorical Syllogism*, ‘supplements of speech’ are compared to bridles (*frena*) and reins (*lora*) of a chariot (*quadriga*), which bind together its parts, i.e., the horses and the car, to make them to move together as a unit.<sup>52</sup> In this analogy, prepositions and conjunctions are compared to bridles and reins, nouns and verbs to the horses and the car, and speech as a whole to a chariot. The participle is classified as a verb.<sup>53</sup> The interjection, the pronoun and the adverb are classified as nouns.<sup>54</sup>

In making his classification of the parts of speech, Boethius looks at the signification of each word. To put it roughly, whether it signifies by itself is the criterion for the genuine part of speech, and what it signifies by itself determines it to be a noun or a verb. Later (§ 3.1–2) we will see the details of these criteria.

### 2.3. Boethius’ Delineation of Logic vs. Grammar

In *Introduction to Categorical Syllogisms*, Boethius concisely presents his viewpoint as a philosopher who focuses simply upon signification, comparing it with that of the grammarians:<sup>55</sup>

Grammarians, considering the forms of spoken words (*figurae vocum*), count eight parts of speech. But philosophers, whose every discussion about the noun and the verb consists of signification, have taught that there are only two parts of speech.<sup>56</sup>

<sup>49</sup> *Introd. cat. syll.* 17.9–18.19 = 766a–b; *De cat. syll.* 13.1–8 = 796d.

<sup>50</sup> Apuleius (*PH* IV, 192.1–6) and Ammonius (*In PH* 12.24–13.17) differ from Boethius on the excluded linguistic items. Apuleius excludes adverb, pronoun, participle and conjunction. Ammonius excludes adverb, conjunction, preposition and article. For Ammonius’ treatment of adverbs, see Barnes 1991.

<sup>51</sup> *De cat. syll.* 13.2 = 796d.

<sup>52</sup> *Ibid.* Cf. Ammonius compares the linguistic unit to a ship (*In PH* 12.25).

<sup>53</sup> *Ibid.* Cf. Ammonius places the participle between the noun and the verb (*In PH* 15.1–4).

<sup>54</sup> *Ibid.*

<sup>55</sup> Cf. Martianus Capella, *De nuptiis philologiae et mercurii* IV [388] 130.1–2: “Nomen est quae rem significat et per casus flecti potest; uerbum est quod aliquid significat et per tempora flecti potest.” Despite the fact that Martianus Capella makes these definitions in the book on dialectic, his definitions do not focus only on signification.

<sup>56</sup> *Introd. cat. syll.* 17.12–15 = 766a–b: “Grammatici enim considerantes uocum figuras octo orationis partes annumerant; philosophi vero, quorum omnis de nomine uerboque tractatus in significatione est constitutus, duas tantum orationis partes esse docuerunt.”

Comparing this with Donatus' definitions of parts of speech, we cannot take Boethius' statement as an accurate description of what grammarians were doing. He says that grammarians divide parts of speech by considering the 'forms (*figurae*) of spoken words,' but Donatus' definitions of parts of speech (in § 2.1) say that grammarians consider signification as well as case-inflections, i.e., the 'forms.'<sup>57</sup> Hence, we should take Boethius' statement to be his belief as to what grammarians should do rather than what they were actually doing.

Knowing how Boethius delineates the difference between grammar and philosophy, part of which is logic,<sup>58</sup> we can easily see why Boethius claims that '*garalus*' is a noun for a grammarian but not a philosopher. Since '*garalus*' has the ending like that of a masculine noun in the

---

Simplicius (*In Cat.* 9. 20–24) explains grammarians' approach in a way somewhat similar to Boethius. Cf. Aristotle, *Met.* IV, ch. 2, 1003b20: "ἡ γραμματικὴ μίαν οὔσα πάσας θεωρεῖ τὰς φωνάς."

<sup>57</sup> Besides this text, Boethius mentions the 'forms' (*figurae*) of spoken words in *In PH*<sup>2</sup> 32.19 (for the translation and quotation, see the next page); *In Cat.* 159b–d and 163a (for the translation and quotation, see note 63 of this chapter). Donatus mentions the 'form' of participles in his definition of the participle (see [5] in § 2.1). As Boethius himself acknowledges (*In Isag.*<sup>1</sup> 34.19–20; *In Cic. Top.* 334.33 = 1108d), '*figura*' is 'σχῆμα.' Simplicius uses the expression 'σχῆμα τῆς λέξεως' (e.g., *In Cat.* 312.25; 336.5; 396.6). The ancients regard Gorgias of Leontini as the inventor of σχῆμα, and Aristotle uses the expression 'σχῆμα τῆς λέξεως' in *Sophistical Refutations* (e.g., I, ch. 4, 165b27) and *Rhetoric* (e.g., II, ch. 24, 1401a8). In the Hellenistic ages, the use of 'σχῆμα' or '*figura*' is often of Stoic origin or Stoic inspiration (for 'σχῆμα' in the tradition of logic, see Ebbesen 1981a: esp. 210–216 and Barnes 2007: 276–280; for 'σχῆμα' and '*figura*' in the rhetorical tradition, see Caplan 1954: 274–275 and Murphy 1990). In this usage, 'σχῆμα/*figura*', which can be understood as a form (εἶδος/*forma*), is not against materiality (I am indebted for this point to Barnes 2007: 277). Thus Boethius and Simplicius, not to mention the grammarian Donatus, are under the Stoics' influence in using the expression 'form,' although these commentators on Aristotle do not accept the Stoics' material characterization of a word (*vox/φωνή*) as 'percussed air' (see the Introduction, § 4, p. 9).

<sup>58</sup> Boethius claims that logic is a part of philosophy as well as an instrument (*supellex/instrumentum*) of philosophy (*In Isag.*<sup>2</sup> 142.17–143.7: cf. Ammonius, *In PrA* 10.38–11.20 and Philoponus, *In PrA* 6.21–24). Logic has its own aim, which is to discover and judge reasons (*rationes*). Logic is a part of philosophy because only philosophy considers this aim. Logic, however, is an instrument of philosophy because the truth of philosophy is investigated by means of logic. Aristotelian commentators, including Boethius, report that there were different opinions concerning the status of logic (Alexander, *In PrA* 3.4–29; Ammonius, *In PrA* 8.15–11.21; Philoponus, *In PrA* 6.19–9.24). Two representative views are: (1) logic is a part (μέρος) of philosophy and (2) logic is an instrument (ὄργανον) of philosophy. Often the first view is attributed to the Stoics and the second view to the Peripatetics (Ammonius, *In PrA* 8.20–25; Philoponus, *In PrA* 6.21–24). Although this bipolar division is too simplistic to comprehend their diversities (see Lee 1984: 44–54; Lloyd 1990: 17–21; Sorabji 2005: 32–36; especially Barnes 2007: 448–463), it is possible to say that Boethius reconciles the two views.

singular, nominative case in Latin (as ‘*dominus*,’ master) and in Latin only nouns terminate in *-lus*,<sup>59</sup> it would be regarded as a noun from the grammarian’s viewpoint, which should focus upon the form of the word. For a philosopher, ‘*garalus*’ cannot be a noun, inasmuch as it does not signify anything.<sup>60</sup> In Chapter 2 (§ 3.5), I mentioned the fact that Boethius compares spoken words to coins. This comparison comes up when he explains how ‘*garalus*’ is not a noun in philosophy:

Just as in order to be called a ‘coin’ (*nummus*), being copper with some shape (*figura*) imprinted on it is not enough, but it must also be the value of something, so too verbs and nouns (*nomina*) are not merely vocal sounds (*voces*) but are imposed with (*posita*) some signification of thoughts. For a vocal sound that signifies (*designat*) nothing, such as ‘*garalus*,’ while grammarians contend that it is a noun, in consideration of the form (*figura*) of the vocal sound, philosophy has not considered it as a noun unless it has been posited so as to be able to signify (*designare*) some concept (*conceptio*) of the mind (*animus*) and some thing. For a noun (*nomen*) must be necessarily the noun of something. But if some word signifies nothing, it is not a noun of anything. And if it is of nothing, it will not even be called a noun. Therefore, such a vocal sound, i.e., a significative vocal sound, is called not only ‘a vocal sound’ (*vox*) but also ‘a verb’ or ‘a noun,’ just as a coin is called not only ‘copper’ (*aes*) but also by its proper noun ‘coin’ by which it differs from another [piece of] copper. Therefore, this claim made by Aristotle, in which he says ‘what are in a vocal sound,’ signifies nothing other than the vocal sound that not only is a vocal sound but also, while being a vocal sound, nevertheless has a certain property and, as it were, a form of imposed signification ‘stamped’ [upon it].<sup>61</sup>

<sup>59</sup> Ebbesen 2003: 270.

<sup>60</sup> In *PH*<sup>2</sup> 32.17–25. The Latin text is quoted in the next note. Similarly, he says in *De div.* 34.21–22 = 886c: “Vox autem non significatiua nihil ad nomen, etenim nomen significat.”

<sup>61</sup> In *PH*<sup>2</sup> 32.13–33.2: “Sicut nummus quoque non solum aes inpressum quadam figura est, ut nummus vocetur, sed etiam ut alicuius rei sit pretium: eodem quoque modo verba et nomina non solum voces sunt, sed positae ad quadam intellectuum significationem. Vox enim quae nihil designat, ut est garalus, licet eam grammatici figuram vocis intuentes nomen esse contendat, tamen eam nomen philosophia non putavit [Meiser: putabit], nisi sit posita ut designare animi aliquam conceptionem eoque modo rerum aliquid possit. Etenim nomen alicuius nomen esse necesse erit; sed si vox aliqua nihil designat, nullius nomen est; quare si nullius est, ne nomen quidem esse dicetur. Atque ideo huiusmodi vox id est significativa non vox tantum, sed verbum vocatur aut nomen, quemadmodum nummus non aes, sed proprio nomine nummus, quo ab alio aere discrepet, nuncupatur. Ergo haec Aristotelis sententia qua ait ea quae sunt in voce nihil aliud designat nisi eam vocem, quae non solum vox sit, sed quae cum vox sit habeat tamen aliquam proprietatem et aliquam quodammodo figuram positae significationis inpressam.” Meiser’s emendation (‘putabit’) does not have any advantage for discarding the reading (‘putavit’) in the MSS. Ammonius makes a similar argument



Materially speaking, coins are a sort of metal (e.g., copper), and spoken nouns and verbs are a sort of vocal sound, namely an articulated one. In addition, they all have shapes or forms peculiar to them. The piece of metal has a particular stamp on it, and the articulated vocal sounds have a particular inflection. Having proper shapes or forms, however, is not enough for them to be a coin, a noun, or a verb. Articulated vocal sounds having a noun-like form (e.g., ‘*garalus*’) or a verb-like form should not be considered, at least philosophically, as nouns or verbs, just as a piece of metal having a particular stamp on it is not yet a coin. Value and signification should be imposed upon them. Grammarians, however, should see these sounds as real nouns. Philosophers, on the other hand, never do so unless these sounds obtain some signification by convention (recall BoST<sub>2</sub>).

It is no wonder that Boethius claims that ‘*monoptota*,’ a type of noun lacking inflections, is an issue for grammar.<sup>62</sup> For, what distinguishes ‘*monoptota*’ from other nouns is in their forms, i.e., in their lack of case-inflections.

### 3. *The Noun and the Verb*

From Boethius’ philosophical point of view, only nouns and verbs are genuine parts of speech, and they are classified as nouns or verbs based upon their signification.<sup>63</sup> I will next examine Boethius’ explanations of

---

about the coin-word comparison in *In PH* 22.27–23.2: “καθάπερ γὰρ ἡ θύρα λέγεται μὲν εἶναι ξύλον καὶ τὸ νόμισμα χαλκὸς ἢ χρυσὸς (οὕτω δὲ λέγονται ὡς ἐκ τούτων ἔχοντα τὴν γένεσιν, φυσικῶν ὄντων πραγμάτων, αὐτὰ κατὰ τοὺς ἐπιτεθέντας τοῖς ὑποκειμένοις χαρακτῆρας καὶ τὰ σχήματα τὸ εἶναι ἔχοντα· ὅταν γὰρ τὰ ξύλα τοίως ἢ τοίως συντεθῇ, τότε λέγομεν γεγονέναι θύραν ἢ θρόνον, ἄλλως δὲ οὐ, καὶ ὅταν ὁ χρυσὸς τοιούτῳ δέξηται τύπους, τότε γίνεται νόμισμα), τὸν αὐτὸν καὶ ἐνταῦθα τρόπον οὐχ ἁπλῶς φωναὶ τὰ ὀνόματα καὶ τὰ ῥήματα, ἀλλὰ τοιῶσδε μορφωθεῖσαι καὶ διαπλασθεῖσαι ὑπὸ τῆς λεκτικῆς φαντασίας καὶ σύμβολα νομισθεῖσαι τῶν ἐν τῇ ψυχῇ διανοημάτων.”

<sup>62</sup> *De cat. syll.* 13.10–12= 797a.

<sup>63</sup> I should note that Boethius has not yet expressed this view in his early work, the commentary on *Categories*. He claims there that the noun and the verb are called as such according to their forms, namely their inflections in cases and tenses: “In Perihermeneias enim libro de nomine et verbo considerat quae secundum figuram quamdam vocabuli sunt, quod illud inflecti casibus potest, illud variari per tempora: hic vero non secundum has figuras, sed in eo quod voces significantes sunt disputatur” (*In Cat.* 163a). Perhaps he just follows Porphyry’s view of *Peri hermeneias* (see Porphyry, *In Cat.* 58.32–59.2). According to this earlier view, the classification of noun and verb would be assigned to grammarians, not philosophers at all. The grammatical approach to noun and verb

noun and verb to see how their definitions and classifications rely on their significations. As we will see, his explanation of nouns and verbs are very faithful to Aristotle's statements, but he complements them with ideas that may come from the Stoics' studies of grammar and logic.<sup>64</sup>

### 3.1. *The Common Conditions for the Noun and the Verb*

As has been said already (in § 2.2), as genuine parts of speech, nouns and verbs signify *by themselves*. In addition to *independent signification*, for a noun or a verb, there are two more conditions to be fulfilled.

First, recall Boethius' second semantic thesis (BoST<sub>2</sub>), which was discussed in the last two chapters: spoken words signify by convention. Nouns and verbs are significant *by convention* (*ad placitum*).<sup>65</sup> Aristotle explicitly affirms the conventionality requirement for nouns,<sup>66</sup> but not for verbs.<sup>67</sup> Assuming that Aristotle simply omits talking about this point on verbs,<sup>68</sup> Boethius holds that both nouns and verbs share the condition in signification. The conventionality condition excludes emotional sounds

---

corresponds to his statement of 'second imposition.' In the commentary on *Categories*, he introduces a theory of two impositions (for an analysis of his theory of two-impositions, Ebbesen 1987: 297–299 = repr., 382–383). To put it short, the first imposition is naming a thing, for instance, 'man,' and the second imposition is naming a name, for instance, naming 'man' 'a noun.' He says that the second imposition is made simply according to the form of a word: "Prima igitur illa fuit nominum positio, per quam vel intellectui subiecta vel sensibus designaret. Secunda consideratio, qua singulas proprietates nominum figurasque perspicerent, ita ut primum nomen sit ipsum rei vocabulum: ut, verbi gratia, cum quaelibet res homo dicatur. Quod autem ipsum vocabulum, id est homo, nomen vocatur, non ad significationem nominis ipsius refertur, sed ad figuram, idcirco quod posit casibus inflecti. Ergo prima positio nominis secundum significationem vocabuli facta est, secunda vero secundum figuram: et est prima positio, ut nomina rebus imponerentur, secunda vero ut aliis nominibus ipsa nomina designarentur" (*In Cat.* 159b–d). Boethius' thoughts on the second imposition presented here correspond to his early view of noun and verb as grammatical distinctions. The distinction between the first and second impositions is popular among Greek commentators. Porphyry, *In Cat.* 57.2–58.20; Dexippus, *In Cat.* 11.4–17; Ammonius, *In Cat.* 11.7–12.1; Simplicius, *In Cat.* 15.2–16. Pinborg (1972: 34–35) claims that the origin of the distinction may be in the Stoics.

<sup>64</sup> See notes 63 and 88 of this chapter.

<sup>65</sup> For the interpretation of '*ad placitum*' as 'by convention,' see Chapter 2, § 3.5, p. 69.

<sup>66</sup> *PH*, ch. 3, 16a19–20.

<sup>67</sup> But see *Poet.* ch. 20, 1457a10–16. Aristotle takes the requirement for granted for verbs in *Peri hermeneias* because he claims that all verbs are nouns, stating that verbs spoken alone are nouns (see § 3.4 of this chapter).

<sup>68</sup> *In PH*<sup>2</sup> 66.6–8: "Sed quoniam commune est illi cum nomine esse voci et significativae et secundum placitum, idcirco illa reticuit."

from the parts of speech.<sup>69</sup> Human beings scream because of pain, and dogs bark out of anger. Grammarians would call these emotional sounds ‘interjections.’<sup>70</sup> Boethius rejects doing so not because he, as a philosopher, denies an independent category of parts of speech for the interjection; but because, as I mentioned (§ 2.2), he classifies interjections as nouns. Insofar as these sounds signify emotions *by nature* not by convention, he regards them neither as nouns nor as verbs. He may even claim that they are not ‘interjections’ properly speaking.<sup>71</sup>

Boethius mentions three reasons that nouns are not by nature but by convention.<sup>72</sup> First, different peoples speak different words for signifying the same thing: the Greek, the Roman and the barbarians call the same horse differently.<sup>73</sup> Second, the same person or the same thing was called differently in different times: some person who was called Aristotle is now called Plato, and someone who was called Tyr-tamus is now called Theophrastus.<sup>74</sup> Third, there are many words for one thing in one and the same language: ‘*gladius*’, ‘*ensis*’ and ‘*mucro*’; all these Latin words mean ‘sword.’<sup>75</sup> In short, there is a ‘plurivocation’ for

<sup>69</sup> In *PH*<sup>1</sup> 50.20–51.5; In *PH*<sup>2</sup> 54.14–26; 59.14–17.

<sup>70</sup> See Donatus’ definition of interjections (note 39 of this chapter).

<sup>71</sup> Boethius divides the interjection into two kinds in *Introduction to Categorical Syllogisms* (18.7–14 = 766b–c): one spoken by nature, and the other spoken by convention. He claims that only interjections spoken by convention are nouns and that other sounds spoken by nature are neither nouns nor verbs (*ibid.*). He does not mention ‘interjections spoken by nature’ in the second commentary on *Peri hermeneias* (§ 2.2, see the text of note 45 of this chapter) and he seems to refer only to interjections spoken by convention in *De div.* (34.25–28 = 886c). This fact could mean that he did not see them as interjections at the time of writing these works. Interjections spoken by nature are often unarticulated sounds. In the sounds, it is difficult to identify a form of syllables, which grammarians are supposed to consider. He probably held that unarticulated vocal sounds, namely the vocal sounds that are not ‘locutions’ (*locutiones*), were outside even the scope of grammatical considerations.

<sup>72</sup> Ebbesen (1981a: 177) lists six popular reasons for conventionality among commentators, among which are the following three.

<sup>73</sup> In *PH*<sup>2</sup> 55.7–31. He mentions this reason most often because this is the one Aristotle suggests in *PH*, ch. 1, 16a5–6.

<sup>74</sup> In *PH*<sup>2</sup> 55.31–56.5.

<sup>75</sup> In *PH*<sup>2</sup> 56.5–14. He mentioned these three synonymous words in *De trinitate*, § 3, 172.141 and two of them (*gladius*, *ensis*) in *In Isag.*<sup>2</sup> 192.13–16. They are popular examples of synonymous words in late antiquity. Grammarians also mention the same three (Probus, *Instituta artium* 120.9 and Priscian, *Inst.* II, 59.18; for ‘Probus,’ see Kaster 1997: 349). Augustine (*De dialectica* c.6 [11]) mentions *gladius* and *mucro*. Porphyry (*In Cat.* 69.2) mentions three Greek synonymous words for sword, i.e., ἄορ, ξίφος, φάσγανον, and Simplicius (*In Cat.* 36.26) mentions μάχαυρα in addition to these three.

‘sword.’<sup>76</sup> He thinks that these three phenomena would never occur if nouns were established by nature.

Second, parts of the noun and parts of the verb should not be significant when separated. This follows Aristotle’s statement on nouns and verbs and their cases.<sup>77</sup> Parts of the noun (e.g., ‘ma’ in the noun ‘matter’) and parts of the verb (e.g., ‘ru’ in the verb ‘ruminate’) are simply syllables that do not signify anything by themselves. This condition also applies to ‘compound nouns’ such as ‘wild-horse’ (*equiferus*). As I discussed in Chapter 1 (§ 5.1), a part of this word, ‘wild’ (*ferus*), signifies nothing by itself although it may appear to signify.

### 3.2. *The Noun-Verb Distinction*

Having shown the common condition of signification for nouns and verbs, I will next describe the condition that differentiates verbs from nouns. As has been mentioned already (§ 2.2), *what* it signifies by itself distinguishes a verb from a noun, and the crucial criterion is *time* in the content of signification. A verb always connotes the signification of time as ‘lego’ (I *read*), ‘legi’ (I *have read*), and ‘legam’ (I *shall read*) show the present, the past and the future.<sup>78</sup>

Some may object to this criterion, saying that verbs in mathematical propositions, for example, ‘equal’ in “three plus three equals six” does not signify time. To this type of objection, Boethius would point out the distinction between signifying time determinately and signifying time ‘indeterminately’ (*indefinite*).<sup>79</sup> To signify time determinately is to signify a particular time of the present, the past or the future, for instance, now, yesterday or tomorrow. To signify time indeterminately is to signify anytime from the past to the present. Verbs in mathematical propositions signify time indeterminately.

This criterion for verbs, i.e., connotation of time, needs to be further specified since some nouns contain time in their denotation, for instance, ‘today’ (*hodie*) or ‘tomorrow’ (*cras*), which Boethius calls ‘nouns

<sup>76</sup> Boethius, *In Cat.* 164a (‘*multivocum*’) and Porphyry, *In Cat.* 68.31–69.9 (πολύωνυμος). See also Ebbesen 1981a: 178.

<sup>77</sup> *PH*, ch. 2, 16a19–20; ch. 3, 16b6–7.

<sup>78</sup> *In PH*<sup>2</sup> 56.30–31.

<sup>79</sup> *In PH*<sup>2</sup> 51.30–52.6. Cf. *In PH*<sup>1</sup> 45.16–27. In the second commentary, he proposes this distinction for one of the three possible interpretations of Aristotle’s statement, “‘is’ or ‘is not’ is added either simply or according to time” (*PH*, ch. 1, 16a17–18). For a discussion on different interpretations of Aristotle’s text at 16a7–18 including Boethius, see Kneepkens 1994.

of time.<sup>80</sup> Hence, he emphasizes the difference between ‘signifying’ time, which pertains to ‘nouns of time,’ and ‘co-signifying’ time, which holds for verbs.<sup>81</sup>

What does ‘co-signify’ (*consignificare*) mean in this context?<sup>82</sup> The Latin word is constructed by Boethius for translating the Greek word ‘προσσημαίνειν,’ invented by Aristotle, the lexical structure of which is ‘πρός’ (in addition to) + ‘σημαίνειν’ (to signify). Boethius’ uses ‘*consignificare*’ equivocally just as Aristotle uses ‘προσσημαίνειν.’<sup>83</sup> Their major uses of ‘co-signify’ can be classified into two types. (i) In one way, ‘to co-signify’ means ‘to signify something in combination with something else.’ (ii) In another way, ‘to co-signify’ means ‘to signify something indirectly.’

When Boethius says that “verbs co-signify time,” he uses ‘co-signify’ in the second meaning (ii). He means that verbs principally (*principaliter*) signify actions and passions and secondarily or accidentally signify time in which the actions and passions take place.<sup>84</sup> Rarely does he say that verbs ‘signify’ (*significare/designare*) time.<sup>85</sup> Rather he says that a verb “draws (*trahere*) the force (*vis*) of time.”<sup>86</sup> Or he says that a verb “introduces (*inducere*) the force of time and inserts (*inserere*) it.”<sup>87</sup> He understands Aristotle’s ‘co-signification’ in this context accurately, supplementing the content of the principal signification of a verb with the content of its secondary signification.<sup>88</sup> By ‘co-signification’

<sup>80</sup> In *PH*<sup>2</sup> 57.4; In *PH*<sup>1</sup> 56.8 (‘day’ and ‘year’ as ‘nouns of time’). For Donatus, they are ‘adverbs of time’ (*Ars minor* 596.6 = 362.23; *Ars maior* 641.9 = 386.8–9). Note that Boethius claims that adverbs are logically nouns (see § 2.2 of this chapter).

<sup>81</sup> In *PH*<sup>2</sup> 57.6–12; 66.9–27. With examples ‘today’s,’ ‘yesterday’s,’ and ‘the last year’s,’ Ammonius furnishes a similar explanation (In *PH* 32.3–7). He says that Porphyry gives an explanation of this sort.

<sup>82</sup> For an overview of the role of ‘*consignificare*’ in medieval grammar and logic, see Pinborg 1972: 60–61.

<sup>83</sup> For Aristotle’s uses of ‘προσσημαίνειν,’ see Lallot 2003: 12–16. For Boethius’ uses of ‘*consignificare*,’ see Rosier-Catach 2003: 62–70.

<sup>84</sup> In *PH*<sup>2</sup> 66.9–16. A similar interpretation is found in Ammonius’ commentary (In *PH* 48.6–9).

<sup>85</sup> I have found Boethius’ saying so only twice in the commentaries. In *PH*<sup>2</sup> 57.7–8: “Verbum enim cum aliquo proprio modo tempus quoque significat.” Also, In *PH*<sup>2</sup> 67.29–30: “Currit vero idem accidens in verbo positum praesens tempus designat.”

<sup>86</sup> In *PH*<sup>1</sup> 55.25; In *PH*<sup>1</sup> 56.12; In *PH*<sup>2</sup> 56.28; In *PH*<sup>2</sup> 66.15.

<sup>87</sup> In *PH*<sup>2</sup> 66.22.

<sup>88</sup> The supplement, which is also found in Ammonius’ commentary (In *PH* 48.6–9), may have been conducted under the influence of Stoic grammatical studies. The grammarians’ definitions of a verb say that a verb signifies an action and a passion.

(προσημαίνειν/*consignificare*), neither Aristotle nor Boethius means that a verb directly signifies time (χρόνος/*tempus*) just as it signifies a thing, but that a verb *indirectly signifies* time.<sup>89</sup>

This criterion, that is, co-signification of time, provides a theoretical reason for the ancient tradition of seeing an adjective as a noun.<sup>90</sup> An adjective has signification by itself but does not contain signification of time in the required sense, and therefore, cannot be under the classification of verbs.<sup>91</sup>

In making the distinction between the noun and the verb, Boethius' focus is on 'co-signification' or indirect signification of time, but he also claims that the noun and the verb differ in their principal signification as well. In commenting on Aristotle's statement "The verb is always a sign of things said of something else,"<sup>92</sup> he claims that verbs *always* signify accidents or that they signify *nothing but accidents*.<sup>93</sup> Every verb principally signifies an action or a passion, which is an accident, while many nouns (e.g., 'man' and 'Socrates') signify substances. Since some nouns also signify accidents, this difference in principal signification cannot establish a criterion for the noun-verb distinction, but a noun signifying an accident and a verb signifying the same accident have *some* difference in signification. For instance, the noun 'a run' (*cursus*) signifies an action of running, but it does not say whether the action inheres in someone. On the other hand, the verb 'runs' (*currit*) signifies that the action of running *inheres in* someone, him or her, who is a runner.<sup>94</sup>

---

Dionysius Thrax, *Ars grammatica*, § 13, 46.4–5: "Ῥῆμά ἐστι λέξις ἄπτωτος, ἐπιδεκτικὴ χρόνων τε καὶ προσώπων καὶ ἀριθμῶν, ἐνέργειαν ἢ πάθος παριστάσα." See also note 34 of this chapter for Donatus' definition of a verb.

<sup>89</sup> Barnes 1996: 190, n. 54: "Michael Frede has pointed out to me that when Aristotle says that a verb προσημαίνει time, we should not think that it signifies time—or at least, not that it signifies in the same sense in which it signifies a πράγμα."

<sup>90</sup> See Chapter 3, § 3.2, p. 88.

<sup>91</sup> Against Whitaker (1996: 53–54), De Rijk (2002, 1: 214) suggests that it is wrong to find support for the claim that an adjective is a noun in Aristotle's texts, saying that adjectives are used as examples of verbs (*rhemata*) in his writing (*PH*, 16a15, 20a32, 20b2). In claiming this, De Rijk calls these adjectives 'nominal *rhemata*.' I do not think that the notion of 'nominal *rhemata*,' which is absent in Aristotle, helps understanding the issue. Aristotle's own claim that all verbs spoken by themselves are nouns (*PH*, ch. 3, 16b19–20) can explain why he sometimes uses adjectives as examples of verbs. Adjectives can be called either 'nouns' or 'verbs' when they are spoken alone.

<sup>92</sup> Aristotle, *PH*, ch. 3, 16b7 (according to Boethius' reading): "καὶ ἔστι ἀεὶ [Minio-Paluello: ἔστι δὲ] τῶν καθ' ἑτέρου λεγομένων σημείων." / 7.2–3: "[E]t est semper eorum quae de altero praedicantur nota."

<sup>93</sup> In *PH*<sup>1</sup> 56.27; In *PH*<sup>2</sup> 67.7–10; In *PH*<sup>2</sup> 68.7–24.

<sup>94</sup> In *PH*<sup>2</sup> 67.11–21.

### 3.3. *Indefinite Nouns and Verbs and Cases of Nouns and Verbs*

We have seen the conditions required for nouns and verbs, but Boethius, following Aristotle, excludes two groups of the parts of speech that fulfill the conditions for the categories of noun and verb.

First, Boethius excludes ‘indefinite nouns’ and ‘indefinite verbs.’<sup>95</sup> The ‘indefinite noun’ (*nomen infinitum*) is a noun with a negative particle, for instance, ‘non-man’ (*nonhomo*). The ‘indefinite verb’ (*verbum infinitum*) is a verb with a negative particle, for instance, ‘non-run’ (*non-currit*), which is different from the negation ‘does not run’ (*non currit*). For the separation of the indefinite noun from the noun, he mentions the two differences in signification: (i) Whereas a noun signifies something definite, an indefinite noun signifies nothing definite. While ‘man’ (*homo*) signifies nothing but a human being, ‘non-man’ (*nonhomo*) can signify anything except a human being: a horse, a dog, a stone and so on.<sup>96</sup> (ii) Whereas a noun is a name *either* of a thing that exists *or* a thing that does not, an indefinite noun can be a name of both at the same time.<sup>97</sup> The noun ‘man’ signifies nothing but an existing species of animal, and the noun ‘goat-stag’ signifies nothing but a fictional animal. On the other hand, the indefinite noun ‘the non-man’ can signify such a fictional monster as Scylla as well as a stone.<sup>98</sup>

<sup>95</sup> This follows Aristotle’s statements in *PH*, ch. 2, 16a32–16b1 and *PH*, ch. 3, 16b14–17. For the analysis of his statements, see Bäck 2000: 200–207. For a discussion of the status of the indefinite noun in medieval logic, see Black 1992. Black claims that exclusion of the indefinite noun from logic is largely found in the tradition of Latin commentators beginning from Boethius.

<sup>96</sup> In *PH*<sup>1</sup> 52.17–19; In *PH*<sup>2</sup> 61.30–62.7.

<sup>97</sup> In *PH*<sup>2</sup> 62.7–16. Boethius does not make this point in his first commentary. De Rijk (2003a and 2003b) claims that this characterization of the indefinite noun is not genuinely Aristotelian, but stems from Ammonius’ commentary. On the other hand, Bäck (2003: 322) claims that Aristotle implicitly endorses this characterization. For that interpretation, Bäck mentions a variant reading (at 16a32) that explicitly claims that the indefinite noun is a noun both of the existent and the non-existent (“ὅτι ὁμοίως ... μὴ ὄντος”). Bäck says that Ammonius, Boethius, Averroes and Aquinas take this reading. To be accurate, Boethius does not have this reading in his Latin translation, but he virtually adopts it in his explanation in the second commentary. I agree with Bäck’s conclusion. We can more reasonably understand Aristotle’s thesis that every verb spoken alone is a noun (16b19–20), if the indefinite noun fulfills the same condition as the indefinite verb. Aristotle says that the indefinite verb applies indifferently to the existent and the non-existent (*PH*, ch. 3, 16b14–15; for the text, see note 100 of this chapter). In Chapter 6, I will extensively criticize De Rijk’s view that Ammonius’ commentary on *Peri hermeneias* is a major source of Boethius’ second commentary on *Peri hermeneias*.

<sup>98</sup> *Oxford Classical Dictionary* defines ‘Scylla’ as “a fantastic monster with twelve feet and six heads who lurked in a cave situated high up on the cliff opposite Charybdis,

As for indefinite verbs, there is no doubt that he separates them from verbs,<sup>99</sup> but it is difficult to tell exactly *how* Boethius separates them from verbs because there is a *lacuna* in the manuscripts. Aristotle says, “Let us call them indefinite verbs, because they hold similarly of anything existing and non-existing.”<sup>100</sup> According to the extant parts of the text, it seems (as I argued in Chapter 1, § 5.2), following this statement, Boethius would say that an indefinite verb can make up a true sentence whether it is predicated of an existent or a non-existent whereas a definite verb cannot.<sup>101</sup> A sentence in which an indefinite verb is predicated of a non-existent (e.g., “Scylla non-runs”) is always *true*, and a sentence in which the indefinite verb is predicated of an existent thing (e.g., “A man non-runs”) is true when a certain condition is fulfilled (when the man is doing anything other than running). On the other hand, a sentence in which a verb ‘run’ is predicated of a non-existent thing (e.g., “Scylla runs”) is *always false*, but a sentence in which the verb is predicated of an existent thing (e.g., “A man runs”) is true when a certain condition is fulfilled (when the man is running). Thus, the difference in signification between the verb and the indefinite verb is found when they are predicated of a non-existent thing: in short, the indefinite verb always makes up a sentence that signifies something true whereas the definite verb always makes up a sentence that signifies something false.

Second, Boethius excludes ‘cases of nouns’ and ‘cases of verbs,’ which we and grammarians of his time count as nouns and verbs,<sup>102</sup> from the

---

darting her necks out like a kind of multiple moray eel to seize dolphins, sharks, or passing sailors.” It appears in Virgil’s *Aeneid* (I 200; III 420; VI 286; VII 302) and is originally found as ‘Σκύλλη’ in Homer (*Od.* XII 85; 245 etc). In Boethius’ commentaries, it is used several times as an example of a non-existent thing.

<sup>99</sup> Though he does not state it clearly in the extant part, his translation of Aristotle and his statement elsewhere in the second commentary (*In PH*<sup>2</sup> 100.16–17) tell us that he excludes indefinite verbs from verbs.

<sup>100</sup> *PH*, ch. 3, 16b14–15: “ἀλλ’ ἔστω ἀόριστον ῥῆμα, ὅτι ὁμοίως ἐφ’ ὅτου οὐνύπαρχει καὶ ὄντος καὶ μὴ ὄντος.” / 7.9–10: “[S]ed sit infinitum verbum, quoniam similiter in quolibet est vel quod est vel quod non est.”

<sup>101</sup> *In PH*<sup>2</sup> 69.29–70.20 (there is a *lacuna* starting from 70.15 to 70.20).

<sup>102</sup> According to grammarians, the cases of a noun, of course, include the nominative case. “Casus sunt sex, nominatiuus, genetiuius, datiuus, accusatiuus, uocatiuius, ablatiuus. Ablatiuum Graeci non habent: hunc quidam Latinum, nonnulli sextum casum appellant. Est autem nominatiuus hic Cato, genetiuius huius Catonis, datiuus huic Catoni, accusatiuus hunc Catonem, uocatiuus o Cato, ablatiuus ab hoc Catone” (Donatus, *Ars maior* 624.12–625.2 = 377.15–20). In the tradition of grammar, ‘cases’ belong to nouns and pronouns, not to verbs (Priscianus, *Inst.* XIII 1.2). Note their definitions of a verb, which say that a verb lacks a case (see note 34).



noun and the verb.<sup>103</sup> In his definition, ‘nouns’ are only those in the nominative case (e.g., ‘Cato’) and ‘cases of a noun’ are the oblique cases, that is, those other than the nominative case (e.g., ‘Catonis,’ ‘Catoni,’ ‘Catonem’ and so on).<sup>104</sup> In his definition, ‘verbs’ are only those in the present tense and ‘cases of a verb’ are those in the past, future and perfect tenses.<sup>105</sup> The cases of the noun and the verb are not identified by their forms, i.e., their inflections, but by their significations, just as the noun and the verb are. A case of a noun is not a noun because it does not signify a truth-value when combined simply with the verb ‘to be’ (e.g., ‘is,’ ‘was’ or ‘will be’), whereas a noun always does. For instance, “Cato is” always signifies something true or something false, but “Cato’s is” does not signify a truth-value unless some noun, for instance, ‘speech’ is added to make up a meaningful sentence such as “Cato’s speech is.”<sup>106</sup> A case of a verb is not a verb because it connotes the past or the future while a verb connotes the present time.<sup>107</sup> Boethius does not leave us further comments about the difference between verbs and cases of verbs. As I mentioned, there is a *lacuna* in the manuscripts, and we do not have the text in which he may have discussed further the relationship between verbs and cases of verbs. It is tempting to assume that the truth-value matters for this difference, as it does for the difference between nouns and cases of nouns. The truth-value of a past-tensed sentence, i.e., a sentence that contains a verb in the past tense, is closed. Whenever it is said, the sentence is always true or always false. The truth-value of a future-tensed sentence, i.e., a sentence that contains a verb in the future tense, is open at least when the sentence deals with a future contingent. Whenever it is said, “they will have a sea-battle” does not have a fixed truth-value.<sup>108</sup> On the other hand, the truth-value of a present-tensed sentence, i.e., a sentence that contains a verb in the present tense, changes in accordance with the time when it is uttered. “I write” is true now, but a few minutes later it may become false.

<sup>103</sup> This follows Aristotle’s statement in *PH*, ch. 2, 16a31–16b1 and ch. 3, 16b16–17.

<sup>104</sup> In *PH*<sup>2</sup> 65.3–7. (Boethius uses the same examples of the oblique cases as Donatus. For the comparison, see note 102.) Ammonius (In *PH* 42.30–43.3) says that all the Peripatetics hold this position.

<sup>105</sup> In *PH*<sup>1</sup> 61.5–8. Unfortunately there is a *lacuna* in manuscripts in this part of the second commentary (around In *PH*<sup>2</sup> 70.20). This statement agrees with Aristotle’s statement in *PH*, ch. 3, 16b16–18.

<sup>106</sup> In *PH*<sup>2</sup> 63.14–65.22.

<sup>107</sup> In *PH*<sup>1</sup> 61.11–15.

<sup>108</sup> See Boethius commentaries on chapter 9 of Aristotle’s *PH* (for the nutshell of Boethius’ discussions, see note 117 of Chapter 1).

### 3.4. *Different Noun-Verb Categories*

After defining the noun and the verb and then excluding the indefinite noun and the indefinite verb, and the cases of both, Boethius, following Aristotle (16b19–20),<sup>109</sup> claims that verbs spoken alone are ‘nouns.’ This is not because every part of speech is called ‘a noun’ but because every verb uttered by itself is akin to a noun (*nomine adfine*) by virtue of its forming a complete thought (*intellectus*) in the listener’s mind.<sup>110</sup> While ‘walks’ in “Socrates walks” is conceived in the mind as an action belonging to Socrates forming a thought that Socrates walks, and therefore, does not establish a complete thought but a part of the thought, spoken alone ‘walks’ by itself forms a thought of the action inhering in someone.

Moreover, despite the fact that Boethius says that ‘a verb’ should be a verb in the present tense, he uses the examples ‘lego’ (= ‘I read’), ‘legi’ (= ‘I have read’), and ‘legam’ (= ‘I shall read’) in order to explain the definition of a verb.<sup>111</sup> According to these examples, it seems, verbs in the past and future tenses as well as those in the present tense are indeed ‘verbs.’ On the other hand, Boethius never mentions noun cases such as ‘Cato’s’ or ‘to Cato’ as examples of nouns.

It is evident that Boethius uses ‘a noun’ and ‘a verb’ equivocally for different groups of the parts of speech. For the purpose of understanding the differences, I will classify nouns and verbs into four categories: (1) Nouns in the broadest sense cover nouns in all cases and (i) verbs in any tense uttered alone. (2) Nouns in all cases include (3) nouns in nominative case and (4) nouns in the other cases. (ii) Verbs in any tense uttered with subjects include (iii) verbs in the present tense and (iv) verbs in other tenses. Hence, we need to look at the context of each discussion to determine which group he means by ‘a noun’ and ‘a verb.’ His examples of nouns and verbs, however, suggest that he holds nouns in nominative cases (e.g., ‘Plato’ and ‘horse’) and verbs in any tense uttered with subjects (e.g., ‘I read,’ ‘you have read’ and ‘we will read’) as paradigmatic examples of nouns and verbs. When he says simply ‘a noun’ and ‘a verb’ as the names of different parts of speech, for instance, when he talks about ‘the three types of noun and verb,’<sup>112</sup>

<sup>109</sup> I will analyze this text in Chapter 6, § 5.1.

<sup>110</sup> In *PH*<sup>2</sup> 71.18–29; In *PH*<sup>2</sup> 72.8–74.9; In *PH*<sup>1</sup> 63.16–27 in text (f) cited and translated in Chapter 3, p. 87.

<sup>111</sup> In *PH*<sup>2</sup> 56.30–31.

<sup>112</sup> In *PH*<sup>2</sup> 30.6–10. The previous chapter focused on them.

therefore, it is likely that he thinks about nouns in the nominative case and verbs in any tense uttered with subjects.

#### 4. *The Conjunction*

We have seen how Boethius logically defines the parts of speech, i.e., nouns and verbs, giving an account of their signification. In order to distinguish a logical noun (e.g., ‘*homo*’) from a grammatical one (e.g., ‘*garalus*’), and a logical verb (e.g., ‘*currit*’) from a logical noun (e.g., ‘*homo*’), he points to the content of signification of each word. But how could he logically treat ‘supplements of speech,’ i.e., prepositions and conjunctions, giving an account of their signification? As for them, the content of signification of each word does not elucidate the difference between them since they, in his definition, signify nothing by themselves. Then, does he take them simply as grammatical distinctions, which do nothing but bind expressions together? Using ‘co-signify’ in the first sense (i), Boethius says that ‘conjunctions,’ which are supplements of speech, “can co-signify (*consignificare*) but they signify nothing by themselves.”<sup>113</sup> That is to say, conjunctions can signify something in combination with some other expressions. The problem, however, remains: how does one explain the co-signification? The difficulty in explaining the signification of the ‘supplements of speech’ gives rise to different views and controversies over their signification. Apollonius Dyscolus reports that Posidonius argues against those who claim that conjunctions (σύνδεσμοι) do not indicate anything (οὐ δηλοῦν τί) but bind the expression together (μόνον τὴν φράσιν συνδοῦν).<sup>114</sup> Peter Abelard claims that conjunctions and prepositions have indeterminate (*incerta*) signification while nouns and verbs have determinate (*certa*) signification.<sup>115</sup>

In his commentaries on *Peri hermeneias*, Boethius discusses mainly nouns, verbs, and the utterances made of them, but he shows a remark-

<sup>113</sup> *In PH*<sup>2</sup> 6.19–20: “Coniunctiones vero consignificare quidem possunt, per se vero nihil designant.”

<sup>114</sup> *De coniunctione*, 214.4–6 = Posidonius, Fr. 45. According to Barnes and Schenkeveld (1999: 209), the target of this criticism was perhaps a Theophrastan theory which holds that nouns and verbs are the only parts of speech (λόγος) and that other linguistic items are parts of locution (λέξις). For more about ancient controversies over the conjunction, see Baratin 1989: 17–114 and Barnes 2007: ch. 3. For Priscian’s notion of the conjunction, see Barnes 2009.

<sup>115</sup> *Dialectica*, 117.26–28: “Dictionum autem aliae per se certam significationem habere dicuntur, ut nomina vel verba, aliae incertam, ut conjunctiones vel (pre)positiones.”

able interest in conjunctions. It is not surprising to see this interest within his logical works since some conjunctions, such as ‘if’ (*si*), are indispensable for hypothetical syllogisms. And, as it seems, the notion of ‘force’ (*vis*) is crucial for his explanation of the distinction between a logical conjunction and a grammatical one.<sup>116</sup>

(a) There is a single utterance (*una oratio*) composed of terms spoken continuously and indicating one meaning (*sententia*) *without a conjunction* such as ‘[It is] a rational mortal animal perceptible of mind and discipline’ (*animal rationale mortale mentis et disciplinae perceptibile*). This composite utterance consists of many terms but *does not have a conjunction* (for, the conjunction ‘and’ (*et*) in the phrase ‘perceptible of mind and (*et*) discipline’ obtains no force (*vis*) in the whole proposition; for, it does not combine the proposition but adds the art of which the man seems to be susceptible), and it has one subject meaning (*sententia*), that ‘it is a man.’<sup>117</sup>

In “[It is] a rational mortal animal perceptible of mind *and* discipline,”<sup>118</sup> Boethius once calls ‘and’ (*et*) in the sentence ‘a conjunction,’ but he mentions this sentence as an example of a composite utterance that *lacks* a conjunction.<sup>119</sup> This may mean that Boethius regards ‘and’ (*et*) in the

<sup>116</sup> According to Ebbesen (2005: 317), “The notion of a *vis* or δύναμις possessed by linguistic expressions had only become important in Hellenistic times.” The notion of ‘force’ or ‘power’ played an important role both in the traditions of logic and grammar. Donatus claims different kinds of power (*potestas*) of different conjunctions: copulative, disjunctive, explicative, causal, and rational (*Ars minor* 599.15–16 = 364.34–36). Priscian uses the word ‘force’ (*vis*) in his definition of a conjunction (see note 37). ‘Force’ (*vis*) and ‘power’ (*potestas*) would share the same Greek word δύναμις in their origin. Apollonius Dyscolus often uses ‘force’ (δύναμις) in his explanation of parts of speech including conjunctions (e.g. *De constructione* III, § 124, 375.4; 375.6). ‘Force’ (δύναμις) is used in the discussion of logic, too. Plutarch says that the copulative conjunction ‘if’ (*ei*) has the greatest force in dialectic (*De E apud Delphos*, 386F). Sextus Empiricus mentions ‘the force of a hypothesis’ (*Adv. math.* VIII 215) and ‘the force of premises’ (*Adv. math.* VIII 284).

<sup>117</sup> In *PH*<sup>2</sup> 108.28–109.9: “Est enim una oratio composita ex terminis continuatim dictis et sine coniunctione unam sententiam monstrans, ut est animal rationale mortale mentis et disciplinae perceptibile. Haec enim oratio composita quidem est ex multis terminis, sed coniunctionem non habet (nam quod dictum est ‘mentis et disciplinae perceptibile,’ haec coniunctio quae est ‘et’ nullam in tota propositione vim optinet: neque enim coniungit propositionem, sed artem addit, cuius susceptibilis homo esse videatur) et habet unam sententiam subiectam, quod est homo.”

<sup>118</sup> We should read the given example in such a way that ‘is’ (*est*) is supplemented since Boethius calls the example ‘a proposition.’ A proposition cannot be formed without a verb. Cf. Gildersleeve and Lodge 1895: 147, § 209: “‘Est’ or ‘sunt’ is often omitted in saws and proverbs, in short statements and questions, in rapid changes, in conditional clauses, and in tenses compounded with participles.”

<sup>119</sup> I will discuss the classifications of simple and composite utterances in the next chapter, § 6.

sentence as a grammatical conjunction but not as a logical one. As a reason for this, he says (i) that ‘and’ in the sentence does not have ‘force’ (*vis*) in the whole proposition, explaining further (ii) that ‘and’ does not combine the proposition. We may guess what he means by (ii) ‘not combining the proposition’ from his examples of composite utterances *with* conjunctions which he presents after text (a): “Jupiter and Apollo are gods” (*et Iuppiter et Apollo dii sunt*) and “Apollo is a fortune-teller and Jupiter thunders” (*et Apollo vates est et Iuppiter tonat*).<sup>120</sup> Both of these examples are made of two propositions by combination. The former is so virtually—the sentence means the same as “Jupiter is a god, and Apollo is a god,”<sup>121</sup> while the latter is so explicitly. To combine the proposition means to combine two propositions into one proposition, and that is the reason why the conjunction ‘and’ has ‘force’ in the proposition.

But why does the conjunction combining two propositions gain ‘force’ while the conjunction combining two phrases does not? They do not differ in respect to combining the expressions together. What does ‘force’ (*vis*) mean in this context? In addition to the psychological context of talking about the powers of the soul,<sup>122</sup> Boethius uses this term frequently in various semantic contexts. He mentions the forces of a noun, a verb, an affirmation, a negation, a contradiction and also those of truth and falsity.<sup>123</sup> Its meaning in text (a) could be illuminated through an interpretation of the following passage, in which Boethius claims that ‘force’ (*vis*), to be exact, the ‘force of a proposition’ (*vis propositionis*), is in a conjunction.

(b) For, when I say, “It is day,” the whole force (*vis*) is in the verb. But if I speak with a conjunction, “If it is day, it is light,” the whole force lies in the conjunction, i.e., ‘if.’ For, when one says, “If it is day, it is light” (*si dies est, lux est*), [that is] “If that is the case, then this happens,” only the conjunction, which puts forward the condition, holds the reason (*ratio*) for truth or falsity. Therefore, the whole force of a proposition like this is in the conjunction while every simple proposition has the whole force placed in the verb.<sup>124</sup>

<sup>120</sup> *In PH*<sup>2</sup> 109.22–28.

<sup>121</sup> The justification of the transformation is found in *In PH*<sup>2</sup> 181.16–18. He suggests that the meaning of “A horse and a man are white” is the same as “A horse is white and a man is white.”

<sup>122</sup> E.g., *In PH*<sup>2</sup> 79.8.

<sup>123</sup> Of a noun: *In PH*<sup>2</sup> 64.26. Of a verb: *In PH*<sup>2</sup> 100.18. Of an affirmation: *In PH*<sup>2</sup> 122.8. Of a negation: *In PH*<sup>2</sup> 122.10; *In PH*<sup>2</sup> 406.19. Of a contradiction: *In PH*<sup>2</sup> 375.14. Of truth and falsity: *In PH*<sup>2</sup> 47.5 (the text is cited in Chapter 3, p. 93).

<sup>124</sup> *In PH*<sup>2</sup> 105.4–12: “Cum enim dico *dies est*, vis tota in verbo est; si autem cum

Similar to when we say ‘the force of the word’ in English, the Latin word ‘*vis*’ sometimes means ‘meaning.’ We see examples of this in Boethius’ works. For instance, he says, “The whole force (*vis*) of the sentence is like that,”<sup>125</sup> in order to claim that he has explained the *meaning* of the sentence. In reading text (b), however, it is impossible to take ‘force’ in this sense; how can the verb or the conjunction alone possess the whole *meaning* of a proposition?

In his foundational study of medieval theories about propositions, Gabriel Nuchelmans proposes that ‘force’ (*vis*) sometimes be rendered as ‘function.’<sup>126</sup> He claims this with examples from Boethius’ *Introduction to Categorical Syllogisms*.<sup>127</sup>

---

coniunctione proferam *si dies est, lux est*, tota *vis* in coniunctione consistit id est *si*. Veritatis enim aut falsitatis rationem sola coniunctio tenet, quae condicionem proponit, cum dicit *si dies est, lux est*: si enim illud est, illud evenit. Igitur in coniunctione omnis *vis* huiusmodi propositionis est, omnis autem simplex propositio totam vim in verbo habet positam.”

<sup>125</sup> In *PH*<sup>2</sup> 449.14: “Et tota quidem sententiae *vis* talis est.” The use of ‘force’ (δύναμις) for ‘meaning’ is found in Plato’s *Cratylus* (394b–c).

<sup>126</sup> Nuchelmans 1973:121. Nuchelmans proposes this for his interpretation of Apuleius’ *Peri hermeneias* IV 192.6–12: “Porro ex duabus praedictis partibus altera subiectiva nominatur velut subdita, ut Apuleius; altera declarativa, ut disserit, non disserit; declarat enim, quid faciat Apuleius. Licet autem eadem vi manente utramvis partem in plura verba protendere, ut si pro ‘Apuleio’ dicas ‘philosophum Platonicum Madaurensem’, item pro ‘disserendo’ dicas eum ‘uti oratione.’” In Apuleius’ text, as Nuchelmans rightly points out (*pace* Sullivan 1967: 23), the ‘force’ in discussion is the force of the subject or of the predicate rather than that of the proposition as a whole. Nuchelmans holds that the ‘forces’ (*vires*) of the subject and the predicate are their functions and not their meanings. For the reading, he relies upon Martianus Capella, *De nuptiis philologiae et mercurii* IV [393] 132.17–133.4 (the edition consulted by Nuchelmans is slightly different from this newer critical edition): “Quicquid accesserit huic sententiae, cui parti accedat diligenter videndum est. nam sunt proloquii partes duae; quae in nomine subiectiva dicitur, quae in verbo declarativa. Subicitur enim quid sit, et declaratur quid de illo possit intellegi. Cum ergo dicimus ‘Cicero disputat,’ si accedat huic sententiae ‘in Tusculano,’ declarativae accessit, si accedat Romanus, subiectivae; item si accedat ‘prudenter et copiose,’ declarativae; si addicitur ‘cum Catone,’ declarativae accessit. Quicquid igitur nominativo casu accedit, subiectivae accedit; quicquid declarativae accedit, variis casibus et modis accedit. Nam subiectivae non possunt alii casus accedere, declarativae non nisi varri excepto nominativo.” But Capella never uses the expression ‘force’ (*vis*) in this passage, and much less does he claim that something equivalent to ‘force’ remains the same in the two subjects and predicates. I think that Nuchelmans’s interpretation would gain a stronger support from Apuleius’ use of ‘*vis*’ in *Peri hermeneias* XIII 212.4–10: “ut etiam Peripateticorum more per litteras ordine propositionum et partium commutato sed vi manente sit primus indemonstrabilis: A de omni B, et B de omni G; igitur A de omni G.”

<sup>127</sup> Nuchelmans 1973: 122, n. 12.

(c) If an enunciation consists of the two parts of speech, as “It is Socrates” (*Socrates est*) and “It is day” (*dies est*), the verb ‘is’ (*est*) performs a two-fold force (*vis gemina*), namely predication (because the verb ‘is’ is predicated of Socrates or of day) and signification of the quality (for indeed, the same ‘is’ standing alone makes up an affirmation; with a negative adverb, a negation).<sup>128</sup>

In text (c) as well as in text (b), ‘force’ cannot be understood as ‘meaning’. If ‘is’ had two meanings, “It is Socrates” (*Socrates est*) would have two different meanings, one that Socrates exists and another whose meaning no one can tell. Rather, we should understand, ‘is’ has both functions, one as the function of a predicate and another as the function that indicates the quality of the proposition, either affirmation or negation.<sup>129</sup>

Endorsing Nuchelmans, John Magee claims that ‘function’ or ‘logical force’ is appropriate for ‘force’ in text (b) also.<sup>130</sup> He says, “The *vis* of a proposition is, for Boethius, not its meaning but the logical force in accordance with which it can be judged to be either true or false.”<sup>131</sup>

In holding this interpretation of ‘force’ (*vis*), Magee adduces two passages in Boethius’ second commentary on *Peri hermeneias*, in addition to text (c):

(d) For those [propositions] that we call ‘hypothetical’ or ‘conditional’ draw their proper force (*vis*) from the condition itself, not from the things that they signify. For when I say “If it is a man, it is an animal” and “If it is a stone, it is not an animal,” the former is following (*consequens*), [and] the latter is conflicting (*repugnans*). This is why the whole force in the conditional proposition is changed by the consequence and the incompatibility of the [constituent] propositions. Hence, it follows that it is not the signification but the proposed condition that establishes the force and the nature of hypothetical enunciations.<sup>132</sup>

<sup>128</sup> *Introd. cat. syll.* 25.12–17 = 769a–b. The Latin text is cited in note 30 of Chapter 6.

<sup>129</sup> Affirmation and negation are the qualities of a proposition (*Introd. cat. syll.* 25.1–11 = 769a).

<sup>130</sup> He borrows the expression ‘logical force’ from Mark Sullivan (1967: 23), though Sullivan seems to mean a different thing by ‘logical force.’ In the study of Apuleius’ *Peri hermeneias*, Sullivan proposes two possible meanings of ‘force’ (*vis*) in the text (quoted in n. 126 of this chapter): (1) meaning and (2) logical force. He says that “The morning star shines” and “The evening star shines” have the same ‘logical force,’ but do not have the same meaning. What Sullivan means by ‘logical force’ is equivalent to ‘reference,’ but what Magee means is not equivalent.

<sup>131</sup> Magee 1986: 23.

<sup>132</sup> *In PH*<sup>2</sup> 199.4–12: “Illae namque quas hypotheticas vel condicionales vocamus ex ipsa condicione vim propriam trahunt, non ex his quae significant. Cum enim dico: si homo est, animal est, et si lapis est, animal non est, illud est consequens, illud repugnans. Quare ex consequentia et repugnantia propositionum tota in propositione vis vertitur.

(e) In those [propositions], i.e., those in which some mode is predicated, [the verb] ‘to be’ or the verbs that contain ‘to be’ are indeed the subject, while a mode on its own is, so to speak, predicated. For [when] ‘to be’ is said on its own without any mode, the substance of a thing is articulated (*pronuntiatur*), and it is questioned in the situation whether it is; for that reason, while the affirmation posits ‘to be,’ the negation states ‘not to be.’ In those [propositions], however, in which there is some mode, it is not stated that something is, but that something is with some quality, so that neither the affirmation nor the negation ambiguates ‘to be’; but concerning the quality, that is how it is, it is questioned (*dubitatur*) at that point among some [listeners]. And so when someone posits that Socrates speaks well, it is not posited as the negation that he does not speak well but that he speaks not-well. For (as has been said) they do not constitute the proposition with respect to [the verb] ‘to be’ or the verbs that contain ‘to be’; rather the mind of the listener is fixed on the mode (*modus*) when [such an] affirmation states that something is. So if these [i.e., modes] contain the force of the whole proposition, but what contains the force of the proposition is predicated, and oppositions are always formed in accordance with that which is predicated, the force of the negation is rightly applied to the modes alone.<sup>133</sup>

Rather than getting into the details of these texts, I would like to focus upon the meaning of ‘force.’ The first text says that the force of a proposition in a hypothetical proposition lies in its condition. In a hypothetical proposition, the condition changes the truth-value of the proposition. “If it is a man, it is an animal” is true, but “If it is a stone, it is an animal” is false. In these two propositions, the conditions are different while the consequents are the same. The second text says that the force of a

---

Unde fit ut non significatio, sed condicio proposita hypotheticarum enuntiationum vim naturamque constituat.” Magee (1986: 22) excerpts from 198.16, but I quote the crucial part for his interpretation of ‘force.’

<sup>133</sup> In *PH*<sup>2</sup> 405.29–406.18 (single quotation marks added; cited in Magee 1986: 22–23): “In his autem, id est in quibus modus aliqui praedicatur, ‘esse’ quidem subiectum est vel ea verba quae ‘esse’ continent, modus autem solus quodammodo praedicatur. Nam quod dicitur ‘esse’ solum sine modo aliquo ipsius rei substantia pronuntiatur et quaeritur in eo quodammodo an sit: idcirco ‘esse’ ponente adfirmatione dicit negatio ‘non esse.’ In his autem in quibus modus aliquis est non dicitur aliquid esse, sed cum qualitate quadam esse, ut esse quidem nec adfirmatio ambigat nec negatio, de qualitate autem, id est quomodo sit, tunc inter aliquos dubitatur. Atque ideo ponente aliquo quoniam Socrates bene loquitur, non ponitur negatio, quoniam bene non loquitur, sed quoniam non bene loquitur, idcirco quoniam (ut dictum est) non ad esse vel ad ea verba quae esse continent [Meiser suppl.: nec] propositionem totam conficiunt, sed potius ad modum intenditur animus audientis, cum adfirmatio aliquid esse pronuntiat. Si igitur haec continent totius propositionis vim, quod autem propositionis vim continet praedicatur et secundum id quod praedicatur semper oppositiones fiunt, recte solis modis vis negationis adponitur.”



negation in a modal proposition lies in its mode. In a modal proposition, the mode changes the truth-value of the proposition. “It is necessary that it rains” is false, but “It is possible that it rains” is true. Thus what is claimed to have ‘the force of a proposition’ affects the truth-value of the proposition that contains it.

Specifying the truth-conditions is rightly called ‘the logical force’ or ‘the function of a proposition,’<sup>134</sup> because what characterizes a proposition is the existence of a truth-value, as we’ve seen in his definition of a proposition.<sup>135</sup> In a simple proposition that consists of a noun and a verb, a verb has the function of specifying the truth-conditions. If we simply utter “Socrates,” the spoken word does not establish any truth-value. The added verb, which signifies whether he *disputes* or *runs*, is crucial for the sentence to be true or false.<sup>136</sup> As is discussed in Chapter 1 (§ 4.3), semantic truth and falsity are engendered only in compositions of thoughts and words. In a composite proposition in which a conjunction combines two propositions—actually in “Apollo is a fortune-teller and Jupiter thunders,” and virtually in “Jupiter and Apollo are gods”—a conjunction has the function of specifying the truth-conditions. We can make sense of this claim by using a truth-table, though Boethius does not have anything like this device in his writings. The modern truth-tables of two propositions A and B have different distributions of T (true) and F (false) in accordance with different logical connectives. The conjunctions ‘and’ (*et*), ‘if’ (*si*) and ‘or’ (*vel*) roughly correspond to conjunction ‘&,’ implication ‘ $\rightarrow$ ,’ and disjunction ‘ $\vee$ ’ in the notation of modern logic.<sup>137</sup>

A	B	A & B	A $\rightarrow$ B	A $\vee$ B	A $\vee$ B
T	T	T	T	T	F
T	F	F	F	T	T
F	T	F	T	T	T
F	F	F	T	F	F

<sup>134</sup> We should understand the meaning of ‘force’ (*vis*) in this sense, where Boethius says that a maximal proposition (*maxima propositio*), that is, the universal and most known proposition from which the conclusion of a syllogism is derived, supplies ‘force’ for an argument (*In Cic. Top.* 280.24–283.33 = 1051a–1054a). For Boethius’ maximal propositions, see Stump 1978: 179–204 = Stump 1989: 31–56.

<sup>135</sup> See Chapter 1, § 1. We will hear more about this in Chapter 5, § 3.

<sup>136</sup> This is understood to be faithful to Aristotle’s statement that there is no affirmation and negation without a verb (*PH*, ch. 10, 19b12).

<sup>137</sup> The first two are called ‘copulative’ (*copulativa*) and ‘causative’ (*causativa*) conjunctions in *In Cic. Top.* 363.1 = 1140d and 362.43–44 = 1140c. Cf. Donatus’ classifications of conjunctions (note 37).

In text (b), Boethius suggests that the conjunction 'if' is the logical connective that indicates the implication-relation between two propositions and roughly equates to ' $\rightarrow$ ' in the notation of modern logic; it conditions the truth-value of the whole proposition in a way similar to the truth-table of ' $A \rightarrow B$ ' drawn above. I say 'roughly' because, as I will argue in the next chapter (§ 5.2), he does not endorse 'implication-relation' or 'material implication' exactly as is presented in the truth-table.

Text (a) reads similarly. The logical conjunction 'and' should contain the 'force in the whole proposition,' i.e., the logical force of the whole proposition. That is to say, the conjunction 'and' (*et*) is a logical connective only when it virtually indicates the conjunction-relation between two propositions and roughly equates to '&' in the notion of modern logic: it conditions the truth-value of the whole proposition in a way similar to the truth-table of ' $A \& B$ ' drawn above. I say 'virtually indicates the conjunction between two propositions' and 'roughly equates' because, as I will show in the next chapter (§ 7), Boethius seems to claim that 'and' as a logical conjunction sometimes combines terms.

As for the conjunction 'or,' Boethius hardly discusses it in his commentaries on *Peri hermeneias*. His examples and explanations in his other logical works suggest that he has the exclusive disjunction in mind when he mentions 'or' as a logical disjunction.<sup>138</sup> We shall discover why he thinks so in the next chapter (§ 5.2). Nevertheless, there is ample evidence of his usage of 'or' in this manner. In his commentary on Cicero's *Topics*, he says that the former part of a disjunctive sentence is taken affirmatively in order that the subsequent part of the sentence might be negated and conversely that the former part of the same disjunctive sentence is taken negatively in order that the subsequent part of the sentence might be affirmed.<sup>139</sup> For instance, in "Either it is day or it is night," if we affirm "it is day," "it is not night" follows, and if we negate "it is day," "It is night" follows.<sup>140</sup> Thus in "either A or B," A and B are incompatible with each other. The truth-table that corresponds to the exclusive conjunction 'or' (*aut*) is ' $A \vee B$ ' drawn above.

---

<sup>138</sup> In general, the Stoics have the same idea about the disjunction (e.g., DL VII 72). For the Stoics' discussions on disjunctions, see Mates 1953: 51–54; Kneale 1962: 160–162; Frede 1974: 93–96.

<sup>139</sup> In Cic. *Top.* 357.34–358.17 = 1135b–c.

<sup>140</sup> In Cic. *Top.* 357.34–358.17 = 1135b–c.

### 5. Conclusion

Boethius presents the distinction between logic and grammar as a consideration of the signification of spoken words and of their forms typically found in their inflections. He divides the parts of speech and the supplements of speech by simply considering their contents or functions of signification.

As for the distinction between a logical noun and a logical verb, Boethius relies on the co-signification of time, i.e., time-connotation as Aristotle suggests in chapters 2 and 3 of *Peri hermeneias* (16a20, 16b6). As for a logical conjunction, he relies on the force (*vis*) of a proposition,<sup>141</sup> i.e., the function or the logical force of a proposition, which specifies the truth-conditions.<sup>142</sup>

In the discussion, Boethius is somewhat under the influence of the Stoics,<sup>143</sup> while maintaining the Peripatetics' position that excludes the conjunction from genuine parts of speech. Without giving its definition, Aristotle mentions the conjunction (σύνδεσμος) only twice in *Peri hermeneias* (17a9, a16) as what makes an utterance (λόγος) one (ἓν); unlike the noun and verb, it is not clear whether Aristotle regards the conjunction as something more than a grammatical distinction that makes a difference in signification.<sup>144</sup> In fact, Aristotle defines the conjunction as a *non-significant* spoken sound (φωνῇ ἄσημος) in chapter 20 of his *Poetics* (1456b38–1457a6). The Stoics, on the other hand, include the conjunction under parts of speech and claim that different conjunctions, having different truth-functions,<sup>145</sup> make different types of non-simple

<sup>141</sup> Instead of 'vis,' he uses 'virtus' a couple of times (*In PH*<sup>2</sup> 105.31; 122.22; 134.6).

<sup>142</sup> Hence, I disagree with Chris Martin's comment that "Boethius' logic is not *classical* propositional calculus but rather that it is not propositional at all" (1991: 279). Were it so, he would not mention 'the force of a proposition.'

<sup>143</sup> The major sources of the Stoics' logic for Boethius would be Cicero's works, especially *Topics* and *On Fate*. At the beginning of *On Fate*, like Boethius, Cicero mentions 'the force of an enunciation,' i.e., 'the force of a proposition': "Explicandaque vis est ratioque enuntiationum, quae Graeci ἀξιόματα vocant; quae de re futura cum aliquid dicunt deque eo quod possit fieri aut non possit, quam vim habeant obscura quaestio est, quam περὶ δυνατόν philosophi appellant;" (*De fato* I [1] 52.3–7).

<sup>144</sup> Scholars tend to take it simply as a grammatical distinction. For instance, Robins 1951: 19–20: "His [Aristotle's] criterion is that nouns and verbs have meaning in isolation, while these σύνδεσμοι [i.e., conjunctions] do not, but only grammatical function." Ackrill (1963: 127) presents a similar interpretation.

<sup>145</sup> For the Stoics' discussions about conjunctions and their truth-functions, see Mates 1953, ch. 4 and Frede 1974: 74–79. Frede argues that Mates goes too far in saying that the Stoics have truth-functional definitions of conjunctions.

proposition (οὐχ ἀπλᾶ ἄξιώματα).<sup>146</sup> As is clear from his remarks on conjunctions, Boethius holds that *some* conjunctions have semantic value. He claims that these ‘logical’ conjunctions have the function of specifying the truth-conditions. Moreover, he takes Aristotle’s statement at *Peri hermeneias* 17a9 and a16 to mean that *some* of these logical conjunctions make an utterance semantically one. An analysis of this claim will be given in the next chapter.

The Stoics’ influence, however, should not be emphasized too strongly. Boethius uses the Stoics’ favorite example “If it is day, it is light,”<sup>147</sup> but his frequent use of this example does not prove that his theories of hypothetical propositions and hypothetical syllogisms are quite similar to the Stoics’ ones.<sup>148</sup> Unlike the Stoics, he rarely formulates hypothetical propositions with numerical variables.<sup>149</sup> That is to say, he rarely says “If the first, the second” (*Si primum, secundum*). Rather he uses a formula popular among the Peripatetics: “If it is a, then it is b” (*Si est a, est b*).<sup>150</sup> His adaptation of the alphabetic formula suggests his distance from the Stoics’ propositional logic.<sup>151</sup> In fact, his notions of simple and composite propositions, which I will discuss in the next chapter (§6), show the affinity of his logic with the Peripatetics’ term logic.

His discussion of the logical conjunction that relies on ‘the force of a proposition,’ which is to some extent similar to the truth-function in modern parlance, further suggests that what matters for logic is not simply signification but signification of *the truth-value*. His discussion

<sup>146</sup> I will treat ‘non-simple propositions’ in the next chapter. Note that ‘axioms/propositions’ (ἄξιώματα) among the Stoics differ from ‘propositions’ in Boethius’ works. As I mentioned on page 21, the Stoics’ ‘axioms/propositions’ are ‘sayables’ (λεκτά) and are similar to ‘propositions’ in contemporary discussions of logic, i.e., non-physical entities that statements express.

<sup>147</sup> In *PH*<sup>2</sup> 105.4–12 = Text (b) = note 124 of this chapter. Boethius uses this example in *In Cic. Top.* V, 353. 42–358.28 = 1131b–1136a, too. This example is reported to be in use among the Stoics (*Adv. math.* VIII 414; *DL* VII 76; 79–81).

<sup>148</sup> Some of Boethius’ examples of Stoic origin “need not have had any particular Stoic flavour in Boethius’ time” (Green-Pedersen 1984: 43).

<sup>149</sup> For an analysis of different formulae of propositions and syllogisms in ancient logic, see Barnes 2007: 322–359.

<sup>150</sup> E.g., *De hyp. syll.* 230.55 = 838b. Cf. His Latin predecessors introduce the Stoics’ formula. Apuleius (*PH* XIII 212.4–12) introduces the Stoics’ formula as well as the Peripatetics’. Martianus Capella (*De nuptiis philologiae et mercurii* IV [420] 144.5–6) accepts the Stoics’ formula.

<sup>151</sup> Obertello 1969: 147. Anthony Specia (2001) analyzes Stoic and Peripatetic elements in Boethius’ discussions of hypothetical syllogisms.

of the distinction between the noun and the case of the noun, in which he basically follows Aristotle's statement, is along the same lines. The distinction depends on whether a noun or a case of a noun forms a declarative sentence, i.e., a sentence signifying *a truth-value*, when it is combined with the verb 'to be.' The significations of nouns, verbs and conjunctions are considered in logic insofar as they do or can affect signification of *the truth-value* of the sentence that is formed of them.

While making a clear distinction between logical and grammatical analyses, Boethius employs some existing grammatical distinctions—noun, verb, case and conjunction—for logical analysis.<sup>152</sup> He does not ignore grammatical analysis or the forms (*figurae*) of words. He does not abandon calling the 'and' in "Socrates and Plato" 'a conjunction.' His coin-word analogy (§ 2.3) shows his attention to word-forms.<sup>153</sup> Blocks of metal without any distinctive marks cannot circulate as coins; nor can unarticulated vocal sounds be employed as words.<sup>154</sup> This is why he often says 'imprinting' (*imprimere*) vocal sounds (*voces*) instead of 'imposing' (*ponere*) vocal sounds when he explains the act of naming.<sup>155</sup>

Rather than making distinctions for logic in contrast to grammatical distinctions, Boethius tends to discriminate what is logical from what is merely grammatical. This chapter shows that he separates a logical noun from a grammatical noun, and a logical conjunction from a grammatical conjunction. He does logic in this way because he sees correlations between existing grammatical distinctions and what is logical, i.e., the different contents or functions of signification that affect the truth-value

---

<sup>152</sup> Cf. Larkin 1971: 40: "Because a science of grammar had not yet been fully developed, a clear distinction between logic and grammar had not yet been made; at the time Aristotle wrote some distinction had been made between (1) the knowledge of reading and writing in general, (2) the stylistic points of poetry and rhetoric, and (3) logic. Even when logic and grammar have been clearly distinguished, logic will always presuppose a correct use of grammar but logic does not indicate what correct grammatical usage is. Inasmuch as Aristotle was doing logic, it was necessary for him to use at least some of the existing grammatical distinctions necessary for the expression of language."

<sup>153</sup> *In PH*<sup>2</sup> 32.13–33.2 (see page 128).

<sup>154</sup> Cf. Ammonius, *In PH* 39.29–32. Boethius is less explicit at this point in his commentaries on *Peri hermeneias*.

<sup>155</sup> *De cat. syll.* 8.11–12 = 763a; *In Isag.*<sup>1</sup> 20.12; *In PH*<sup>1</sup> 47.6; 52.30; *In PH*<sup>2</sup> 94.16. I obtained these parallel texts from a note of the critical edition of *De cat. syll.* (Thörnqvist 2008a: 99).

of sentences. This suggests continuity between logic and grammar, not confusion between them, in his investigation.<sup>156</sup>

---

<sup>156</sup> If we take Boethius' criterion for the distinction between grammar and logic, we shall detect the confusion in Donatus' and in Martianus Capella's works (see notes 32-39 and 55 of this chapter). Donatus, as a grammarian, trespasses into the field of logic while Martianus Capella, as a logician, trespasses into the field of grammar.

## CHAPTER FIVE

### THE VARIETIES OF SPEECH

#### 1. *Introduction*

In the last two chapters, I discussed the issues that surround the notion of ‘speech’ (*oratio*). In Chapter 3, we looked at Boethius’ three types of ‘speech’: written, spoken and mental, and in Chapter 4, I went into Boethius’ divisions of ‘parts of speech’ (*partes orationis*), that is, the noun and the verb. I also discussed his treatment of conjunctions. ‘Parts of speech’ are called such because they make up ‘speech’ as its principal units. Prepositions and conjunctions sometimes make up ‘speech’ as ‘supplements’ to nouns and verbs. During these discussions, I have set aside ‘speech’ itself, not clarifying what it means exactly.

In this chapter, I will focus on ‘speech’ itself, or to be more precise, ‘vocal speech.’

As we saw in Chapter 3, Boethius also explains mental speech and written speech, but he always qualifies them as ‘mental’ and ‘written.’ As I mentioned in the Introduction (§4), ‘speech’ (*oratio*), ‘noun’ and ‘verb’ are ‘interpretations’ (*interpretationes*), which are ‘articulated vocal sounds signifying by themselves.’<sup>1</sup> The Latin word ‘*oratio*’ is one of several expressions used for rendering the Greek expression ‘λόγος.’<sup>2</sup> In etymology, ‘speech’ (*oratio*) originates from the verb ‘to speak’ (*orare*). When Boethius says ‘speech’ without any qualification, he means ‘vocal speech.’

Boethius makes various classifications of speech. Several of these classifications are made in his discussions of the unity of propositions, i.e., the question of what makes a proposition semantically one. Therefore, I will follow his discussion of this problem in the course of presenting how he differentiates them.

His various speech classifications will show several significant aspects of his semantics and logic, such as how many ideas he has incorporated

---

<sup>1</sup> In *PH*<sup>2</sup> 6.20–25.

<sup>2</sup> As Boethius himself notes (In *PH*<sup>2</sup> 72.26–73.13), ‘λόγος’ has other meanings such as ‘reason’ (*ratio*) and ‘definition’ (*definitio*).

into his logic from the Peripatetics and the Stoics. It will also reveal what he takes to be the task of logic in comparison with that of grammar. My discussions in this chapter will support and supplement my description of these issues in the previous chapter. In addition, his definition of a *simple* declarative sentence, which he claims to be the subject of *Peri hermeneias*, shall be explained fully through my analyses of the different speech-classifications.

### 2. Imperfect vs. Perfect

Boethius divides speech (*oratio*) into two kinds, i.e., imperfect speech (*oratio imperfecta*) and perfect speech (*oratio perfecta*).<sup>3</sup> Imperfect speech is ‘a phrase’ such as “Socrates and Plato.” Imperfect speech has more than one noun or verb but not both. Perfect speech is ‘a sentence.’ Perfect speech has verbs and nouns (either explicit or understood). “Plato walks in the Lyceum” has nouns *and* a verb, and ‘*currit*’ (he/she runs) consists of a verb and an understood noun. Boethius is faithful to Aristotle’s definition of speech (λόγος), which includes phrases as well as sentences.<sup>4</sup>

Boethius makes this imperfect vs. perfect distinction, which probably originates with the Stoics,<sup>5</sup> based on the difference in our mental states in listening to them. In listening to imperfect speech, a person does not have a clear thought of what is said and expects to hear the rest. In listening to perfect speech, he obtains a clear thought of what is said and he is satisfied.<sup>6</sup>

### 3. Declarative vs. Other Four Species

Boethius classifies perfect speech, i.e., sentences, into five species. Below are his classifications of sentences with some of the examples he men-

<sup>3</sup> Ammonius (*In PH* 62.11–12) suggests a similar distinction.

<sup>4</sup> For Aristotle’s definition, see *Poet.*, ch. 20, 1457a24–28 (the Greek text is cited in note 40 of this chapter). In contrast, a ‘speech’ seems to be a sentence in Priscian’s definition. See Priscianus, *Inst.* II 53.15–16: “Oratio est ordinatio dictionum congrua, sententiam perfectam demonstrans.” There are, however, some ambiguities in Priscian’s definition (see Rosier 1988), for instance, whether a one-word exclamation like ‘Oh!’ is a speech or not.

<sup>5</sup> DL VII 63 = LS 33F. See also Nuchelmans 1973: 57–58.

<sup>6</sup> *In PH*<sup>2</sup> 8.30–9.5.



tions.<sup>7</sup> As we see, he takes many examples from Virgil's works. Just as Greek authors often quote Homer's phrases, Latin writers in late antiquity frequently cite Virgil's works.<sup>8</sup>

- (i) Invocative (*deprecativa/optativa*)<sup>9</sup>  
 "Please give me your help, Father, and [give] me these firm signs."<sup>10</sup>  
 "May Bacchus, giver of joy, be near."<sup>11</sup>
- (ii) Imperative (*imperativa*)  
 "Go forth, fly, call the Zephyrus and operate the wings."<sup>12</sup>  
 "Take and give friendship."<sup>13</sup>
- (iii) Interrogative (*interrogativa*)  
 "Is it Meliobeus?"<sup>14</sup>  
 "Whither afoot, Moeris? Is it, where the path leads, to town?"<sup>15</sup>
- (iv) Vocative (*vocativa*)  
 "Oh, Father, the eternal power of human beings and things."<sup>16</sup>  
 "You that with eternal sway rule the world of men and gods."<sup>17</sup>
- (v) Declarative (*enuntiativa*)  
 "Firstly, nature has manifold ways for planting trees."<sup>18</sup>  
 "It is day."<sup>19</sup> "It is not day."<sup>20</sup> "It is light."<sup>21</sup> "If it is day, it is light."<sup>22</sup>

<sup>7</sup> *In PH*<sup>2</sup> 9.6–18; *In PH*<sup>2</sup> 95.16–25; *In PH*<sup>1</sup> 35.12–18; *Introd. cat. syll.* 20.12–16 = 767b; *De cat. syll.* 14.11–16 = 797b–c; Cf. *In PH*<sup>1</sup> 71.1–6. Thörnqvist (2008b: 126) lists all the terminologies and examples of these sentences mentioned by Boethius. *In PH*<sup>1</sup> 71.1–6 has the optative but lacks the interrogative. As for this difference, Courcelle (1969: 291, n. 69 = 1948: 275, n. 4) says, "Probably by mistake, in the second passage [*In PH*<sup>1</sup> 71.1–6] Boethius omits the *oratio interrogativa* and replaces it with *oratio optativa*, thus using *oratio deprecativa* in a double sense."

<sup>8</sup> For instance, see Augustine's *De magistro* (II, 3, 160.6–7), Donatus' *Ars* and Priscian's *Institutiones grammaticae*. Virgil's works were used for elementary education in late antiquity. For education and culture in late antiquity, see Marrou 1956 and 1983.

<sup>9</sup> *De cat. syll.* 14.13 = 797c: "optatiua uel deprecatiua." For further discussion about these two expressions, see Thörnqvist 2008b: 127.

<sup>10</sup> *In PH*<sup>2</sup> 9.6–9; *Aen.* II 691: "Iuppiter omnipotens, precibus si flecteris ullius, Da deinde auxilium, pater, atque haec omnia firma."

<sup>11</sup> *In PH*<sup>2</sup> 95.17–18; *Aen.* I 734: "Adsit laetitiae Bacchus dator."

<sup>12</sup> *In PH*<sup>2</sup> 9.9–10; *Aen.* IV 223: "Vade age, nate, voca Zephyros et labere pennis."

<sup>13</sup> *In PH*<sup>2</sup> 95.18–19; *Aen.* VIII 150: "Accipe daque fidem."

<sup>14</sup> *In PH*<sup>2</sup> 9.11–12; *Ecl.* III 1: "Dic mihi, Damoeta, cuium pecus? an Meliboei?"

<sup>15</sup> *In PH*<sup>2</sup> 95.19–20; *Ecl.* IX 1: "Quo te, Moeri, pedes? an quo via ducit?"

<sup>16</sup> *In PH*<sup>2</sup> 9.12–13; *Aen.* X 18: "O pater, o hominum rerumque aeterna potestas."

<sup>17</sup> *In PH*<sup>2</sup> 95.20–22; *Aen.* I 229–230: "O qui res hominumque deumque Aeternis regis imperiis."

<sup>18</sup> *In PH*<sup>2</sup> 9.14–15; *Georg.* II 9: "Principio arboribus varia est natura serendis."

<sup>19</sup> *In PH*<sup>2</sup> 9.17; 95.22: "[D]ies est."

<sup>20</sup> *In PH*<sup>2</sup> 95.22–23: "[D]ies non est."

<sup>21</sup> *In PH*<sup>2</sup> 9.17: "[L]ucet."

<sup>22</sup> *In PH*<sup>2</sup> 9.18: "[S]i dies est, lux est."

This fivefold classification of sentences is supposedly popular among the Peripatetics.<sup>23</sup> Three species (i)-(iii) can be regarded as supplements to the two kinds of discourse that Aristotle mentions in *Peri hermeneias*: the declarative sentence (λόγος ἀποφαντικός) and prayer (εὐχή).<sup>24</sup>

Like the imperfect-perfect division of speech (*oratio*), this fivefold classification of the sentence (*oratio*) can probably be traced back to the Stoics. The Stoics classified the sayable (λεκτόν) into more than five kinds. According to Schenkeveld's reconstruction,<sup>25</sup> the Stoics originally proposed the following ten species of the sayable: (1) declarative (ἀποφαντικός); (2) interrogative (ἐρώτημα), which corresponds to a yes-no question; (3) question (πύσμα), which corresponds to the so-called wh-questions; (4) dubitative (ἐπαπορητικόν); (5) imperative (προστακτικόν), (6) swearing (ὀρκικόν); (7) imprecative (ἄρατικόν); (8) addressing (προσαγορευτικόν); (9) hypothetical (ὑποθετικόν); and (10) quasi-decision (ὁμοιον ἀξιόματα). The Peripatetics would have used some of these species in their account of sentences.<sup>26</sup>

Among the five kinds of sentences, Boethius says, only the declarative sentence is a subject for logicians and philosophers. The other kinds of sentences are the realm of poets and orators.<sup>27</sup> Although he mentions the Peripatetics' fivefold classification, he says that he is not concerned with the number and the division of the other kinds of sentences because he, as a philosopher, is concerned with only declarative sentences,<sup>28</sup> which he often calls 'propositions' or 'enunciations'.<sup>29</sup>

<sup>23</sup> Ammonius (*In PH* 2.9–25) also proposes the fivefold classification: (i) optative (κλιτικός), (ii) imperative (προστακτικός), (iii) interrogative (ἐρωτηματικός), (iv) vocative (εὐκτικός), (v) declarative (ἀποφαντικός). He (*In PH* 3.7–8) says that categorical (κατηγορικός) and hypothetical (ὑποθετικός) sentences are the two species of (v) the declarative sentence.

<sup>24</sup> *PH*, ch. 4, 17a1–4. Aristotle suggests additional kinds of discourse in *Poet.*, ch. 19, 1456b8–13.

<sup>25</sup> Schenkeveld 1984: 347.

<sup>26</sup> Ammonius (*In PH* 2.26–3.6) suggests that the Peripatetics' fivefold division is older, saying that "they [the Stoics] add to these five kinds [to the Peripatetics' five]," but Schenkeveld (1984) argues that the Peripatetics' division is derived from the Stoics' because the Peripatetic classification cannot be found before 5 AD whereas the Stoics' one is found already in 1–2 BC, and, therefore, the Peripatetics' division is a derivation from the Stoics'.

<sup>27</sup> *In PH*<sup>2</sup> 95.28–96.1; *In PH*<sup>2</sup> 96.5–9.

<sup>28</sup> *In PH*<sup>2</sup> 96.5–9.

<sup>29</sup> See Chapter 1, § 1, especially n. 3.

Following Porphyry's steps, Boethius regards affirmation and negation as two species of the declarative sentence:<sup>30</sup> "An affirmation predicates some thing of some thing and joins the later to the former. On the other hand, a negation separates some thing from some thing in predication."<sup>31</sup> He also says more briefly, "An affirmation posits 'to be' (*esse*) while a negation posits 'not to be' (*non esse*)."<sup>32</sup>

#### 4. *Distinctions for Explaining the Unity of Propositions: An Overview*

In his commentaries on *Peri hermeneias*, Boethius discusses the problem of the unity of propositions at length.<sup>33</sup> It is through his discussion about this problem that he proposes numerous distinctions of speech (*oratio*) and propositions. As I explained above (§ 2), 'speech' (*oratio*) includes a phrase as well as a sentence. Boethius holds that a phrase ('imperfect speech' in his expression) and a sentence ('perfect speech') share the same criterion for unity. For him, the phrase "Brown chair," as well as the sentence, "The chair is brown" has unity for the same reason.<sup>34</sup> Aristotle agrees.<sup>35</sup> Boethius and Aristotle approach the problem in a significantly different way from contemporary philosophers. The latter believe that phrases do not have the same type of unity as sentences, and

<sup>30</sup> *In PH*<sup>2</sup> 20.1–3. He says that Alexander has another view that affirmation is prior to negation (*In PH*<sup>2</sup> 16.6–19.3). Ammonius also mentions the views of Alexander and Porphyry and chooses Porphyry's view (*In PH* 15.22–30). Omelyanchik (2003) analyzes the philosophical implication of this controversy.

<sup>31</sup> *In PH*<sup>2</sup> 118.11–13: "Adfirmatio enim de aliqua re aliam rem praedicat eique coniungit, negatio vero a qualibet re quamlibet rem praedicando tollit."

<sup>32</sup> *In PH*<sup>2</sup> 119.9–10: "Esse enim point adfirmatio, non esse negatio."

<sup>33</sup> The discussions altogether comprise more than fifty pages in Meiser's edition of these commentaries. It is noteworthy that his discussions in the second commentary comprise more than fifty pages, whereas his discussion in the first commentary only spans seven pages.

<sup>34</sup> Martha Gibson may be sympathetic to Boethius' approach on this point, though her approach is very different from Boethius'. She says, "Of course, the utterance the speaker made is not the utterance of a *sentence* unless it is of a certain grammatical kind, so the kind of unity such sequences of words [e.g., 'table, brown, chair, big, stove, hot'] exhibit should not be called 'sentential unity.' But the point I would make is that the unity of the sentence is *basically* just a kind of unity that might be common to many different kinds of events in virtue of which they have propositional content" (Gibson 2004: 216).

<sup>35</sup> See the following explanation of Aristotle's statements about the unity of propositions and compare them with his statement about the unity of speech in note 40.

some of them claim that parts of a proposition, i.e., the subject and the predicate, reflect some metaphysical features that make unity possible.<sup>36</sup>

Aristotle discusses the problem of the unity of propositions in four parts of *Peri hermeneias*,<sup>37</sup> and Boethius comments on this problem at great length, foremost because of Aristotle's recurrent discussion on the topic but perhaps also because Boethius believes it important to his logic. Here I cite two of Aristotle's discussions:

(i) The first single declarative sentence is the affirmation, next is the negation. The others are *one* (εἷς) by a conjunction.<sup>38</sup>

(ii) A single declarative sentence is either one (εἷς) that indicates (δηλοῦν) one [thing] (ἓν) or one that is by a conjunction. Many [utterances] are those that indicate many [things] (πολλά) and not one [thing] or those that are disjointed.<sup>39</sup>

In text (i), Aristotle claims that some propositions are *one* by virtue of conjunctions. In text (ii), he claims that *one significatum* makes a proposition *one* and that a conjunction does so as well.<sup>40</sup> It appears that

<sup>36</sup> To be specific, Frege holds that the subject refers to an object while the predicate refers to a concept. Russell and Strawson believe that the subject is of the particular while the predicate is of the universal. For more about contemporary discussions on the unity of propositions, see Linsky 1992, Gibson 2004 and Gaskin 2009.

<sup>37</sup> *PH*, ch. 5, 17a8–10; *PH*, ch. 5, 17a15–17; *PH*, ch. 8, 18a13–18; *PH*, ch. 11, 20b12–b22.

<sup>38</sup> *PH*, ch. 5, 17a8–10: “Ἔστι δὲ εἷς πρῶτος λόγος ἀποφαντικός κατὰ φασιν, εἴτα ἀπόφασιν. οἱ δὲ ἄλλοι συνδέσμων εἷς. ἀνάγκη δὲ πάντα λόγον ἀποφαντικὸν ἐκ ᾧ ματος εἶναι ἢ πτώσεως.”/8.13–14: “Est autem una prima oratio enuntiativa affirmatio, deinde negatio; aliae vero coniunctione unae.”

<sup>39</sup> *PH*, ch. 5, 17a15–17: “Ἔστι δὲ εἷς λόγος ἀποφαντικός ἢ ὁ ἐν δηλῶν ἢ ὁ συνδέσμων εἷς, πολλοὶ δὲ οἱ πολλὰ καὶ μὴ ἓν ἢ οἱ ἀσύνδετοι.”/8.20–9.2: “Est autem una oratio enuntiativa quae unum significat vel coniunctione una, plures autem quae plura et non unum vel inconiunctae.” One may think of this as a mistranslation because Aristotle uses the expression ‘δηλοῦν’ for ‘significare,’ not ‘σημαίνειν.’ Aristotle, at least in some contexts, distinguishes these two expressions (*PoA* II, ch. 10, 93b29–94a2, see Bolton 1976: 524–528). This text, however, is similar in context to text (iii) on p. 160, where he uses ‘σημαίνειν.’ In addition, Ammonius (e.g., *In PH* 73.5 and 73.17) uses ‘δηλωτικός’ and ‘σημαίνων’ interchangeably when commenting on text (i).

<sup>40</sup> Aristotle gives a similar explanation of the unity of speech in *Poet.*, ch. 20, 1457a24–30: “(οὐ γὰρ ἅπας λόγος ἐκ ᾧμάτων καὶ ὀνομάτων σύγκειται, οἷον ὁ τοῦ ἀνθρώπου ὀρισμός, ἀλλ’ ἐνδέχεται ἀνευ ᾧμάτων εἶναι λόγον, μέρος μέντοι αἰεὶ τι σημαῖνον ἔξει) οἷον ἐν τῷ βαδίζει Κλέων ὁ Κλέων. εἷς δὲ ἐστὶ λόγος διχῶς, ἢ γὰρ ὁ ἐν σημαίνων, ἢ ὁ ἐκ πλειόνων συνδέσμων, οἷον ἢ Ἰλιάς μένσυνδέσμων εἷς, ὁ δὲ τοῦ ἀνθρώπου τῷ ἐν σημαίνειν.” In this text, it should be noted that Aristotle regards ‘the Iliad’ as ‘one speech by a conjunction.’ This suggests that Aristotle’s treatment of proper names is similar to Russell’s theory of description.

Aristotle proposes two different criteria for the unity of propositions: one is 'semantic,' in which the *significatum* matters; the other is 'syntactic' or 'grammatical,' in which the presence of a conjunction matters.<sup>41</sup>

Aristotle confuses us with his presentation of these seemingly different kinds of criteria for the unity of propositions. For this reason, John Ackrill lambastes Aristotle:

Aristotle ought either to have adopted a purely grammatical criterion (so that "Callias is a white walking man" would have been one statement and not several), or to have relied upon on the notion of a single thing's being revealed (so that "Callias is white and Callias is a man" would have been two statements and not one). He attempts to blend two criteria which are not of the same type, and he fails to make himself clear.<sup>42</sup>

Akrill's point of criticism above is the same as the one he makes about Aristotle's employment of the noun-verb distinction, which I mentioned in the previous chapter.<sup>43</sup> He argues that Aristotle confuses logic with grammar in this case by using the grammatical category of conjunction. Ackrill recommends using *either* the grammatical criterion *or* the semantic criterion, presumably the former for grammar and the latter for logic. According to the grammatical criterion, "Callias is white and he is a man" as well as "Callias is a white walking man" is a single proposition. According to the semantic criterion, neither "Callias is a white walking man" nor "Callias is white and he is a man" is a single proposition. Being white and walking are different sorts of accidents, and a man is a substance; therefore, these propositions reveal three things, i.e., one substance and two accidents.

In his first commentary on *Peri hermeneias*, Boethius seems to simply follow Aristotle's statement in text (ii).<sup>44</sup> Boethius says that a proposition is one (*unum*) by signification (*significatio*) or by a conjunction (*coniunctio*). His example of the former is "A man is a rational mortal animal" and of the latter is "If it is day, it is light." Similarly, he says, a proposition is 'plural' (*plures*) by signification or without a conjunction (*nulla coniunctio*). His example of a plural proposition by signification is "A dog moves"—given the condition that the 'dog' is taken equivocally as the barking dog next door, the heavenly dog (the Dog Star), and the sea

---

<sup>41</sup> I have borrowed the expressions 'semantic criterion' and 'syntactic criterion' from Whitaker (1996: 75).

<sup>42</sup> Ackrill 1963: 127.

<sup>43</sup> See Chapter 4, § 1, p. 117.

<sup>44</sup> In *PH*<sup>1</sup> 75.3–26.

dog (the seal).<sup>45</sup> To illustrate a plural proposition without a conjunction, he offers, “The sun rises, it shall be the peace, it is night, the heavens revolve.”

In his second commentary, Boethius, like Ackrill, states that Aristotle mixed different lines of thinking in text (ii).<sup>46</sup> Boethius also mentions the confusion and errors of many commentators in their interpretations of this text.<sup>47</sup> To clarify Aristotle’s argument, Boethius introduces two pairs of distinctions: (1) ‘one/single’ (*unum*) vs. ‘multiple’ (*multiplex*) and (2) ‘simple’ (*simplex*) vs. ‘composite’ (*compositum*). Combining these distinctions, he first proposes four types of proposition. In addition, he makes four more distinctions in accordance with the presence and absence of a conjunction. Furthermore, he makes another four more distinctions according to which linguistic items are combined by conjunctions, either terms or propositions. Through this course of his discussion, he finally classifies propositions into eight types. I will summarize the whole nomenclature in a later section (§7). Now let me come back to lay out the above two pairs of distinctions [(1), (2)].

Boethius defines ‘one/single,’ ‘multiple,’ ‘simple,’ and ‘composite,’ as such:

- (a) To be single and multiple speech (*oratio*) is not the same as to be simple and composite speech, and single is different from simple, and multiple is also different from composite.<sup>48</sup>

How do they differ? Boethius suggests that single vs. multiple is relevant to signification, while simple vs. composite is relevant to ‘terms’ or ‘dic-tions’:

- (b) Whether speech is *one* or multiple is based upon what it signifies. If speech signifies *one* thing (*una res*), it is *one* and if it signifies many things

---

<sup>45</sup> ‘Dog’ has been a popular example of an equivocal term. Aristotle, *SE*, ch. 4, 166a16. Boethius uses the example in *In Isag.*<sup>2</sup> 154.17–19; *In PH*<sup>1</sup> 152.28–153.3; *In PH*<sup>2</sup> 353.16–19; *De top. diff.* 9.23 = 1193d–1194a. Ammonius mentions the same three items for ‘dog’ in *In Isag.* 81.23–82.1, plus a cynic philosopher in *In Isag.* 48.24–49.5 (but note that this commentary is composed of notes taken at his lectures and is not written by Ammonius himself). ‘Dog’ is a popular example for the discussion of equivocality during the Hellenistic ages. E.g., Galen, *De captionibus*, c.1; Sextus Empiricus, *Adv. math.* XI 29.

<sup>46</sup> *In PH*<sup>2</sup> 116.6–13.

<sup>47</sup> *In PH*<sup>2</sup> 106.17–18.

<sup>48</sup> *In PH*<sup>2</sup> 106.20–23: “Non est idem namque unam esse orationem et multiplicem, quod simplicem et compositam, et distat una a simplici, distat etiam multiplex a composita.”

(*multes*), it is multiple. Simple and composite utterances should not be referred to signification but to terms themselves or dictions, which are taken in propositions.<sup>49</sup>

This statement seems to claim that single *vs.* multiple is a semantic distinction while simple *vs.* composite is a grammatical distinction. By these distinctions, does Boethius propose the grammatical and logical criteria that Ackrill recommends? With this question in mind, I will analyze each of Boethius' distinctions in the following two sections (§§ 5–6).

### 5. Single *vs.* Multiple

#### 5.1. Single Affirmations and Negations

The single-multiple distinction obviously comes from Aristotle's expressions in the texts cited above: 'one/single' (εἷς) *vs.* 'plural' (πολλοί).<sup>50</sup> As I have mentioned above, Boethius claims that speech is determined to be single or multiple by its signification:

Single speech is what signifies *one* (*unum*) while multiple speech is what does not signify *one* but *plural* (*plura*).<sup>51</sup>

This statement is slightly different from the previous text (b).<sup>52</sup> Boethius says that single speech signifies 'one' (*unum*) instead of 'one thing' (*una res*) and that multiple speech signifies 'many' (*plura*) instead of 'plural things' (*plures res*). He does not seem to differentiate between these two pairs of expressions.<sup>53</sup> It is possible to take this as evidence of his adherence to his first semantic principle (BoSP<sub>1</sub>): to signify a thought is the same act as to signify a thing.<sup>54</sup> When speech signifies something *one*, the oneness belongs to *the thing* (*res*) as well as the thought (*intellectus*) signified by the speech. We will see that he endorses this idea in his explanation of single conditional propositions (§ 5.2).

<sup>49</sup> In *PH*<sup>2</sup> 107.8–12: "Si enim unam significat rem, una est, si multas, multiplex. Simples autem et compositae orationes non ad significationem, sed ad terminos ipsos dictionesque, quae in propositionibus sumuntur, referendae sunt."

<sup>50</sup> See texts (i) (ii) in notes 38 and 39 of this chapter.

<sup>51</sup> In *PH*<sup>2</sup> 106.23–25: "Est ergo una oratio quae unum significat, multiplex autem quae non unum, sed plura." In many other texts he makes similar statements.

<sup>52</sup> See the text in note 49.

<sup>53</sup> See In *PH*<sup>2</sup> 106.1–112.8.

<sup>54</sup> For this principle, see Chapter 1, esp. §§ 4–5.1.

What is speech that signifies *one* thing? One may think that it is speech that describes a singular thing—for instance, Socrates or Callias—but Boethius does not think so. He says that a string of words describing Socrates, “Socrates, a snub-nosed, bald and aged philosopher” (*Socrates philosophus simus calvus senex*) is a multiple utterance because it signifies many things.<sup>55</sup> To talk about one individual entity does not make an utterance *one*. In other words, a subject signifying one singular thing is not sufficient for the unity of speech. Indeed, Aristotle suggests that the predicate of a single proposition also signifies *one* thing:

(iii) A single affirmation or negation is one which signifies one [thing] about one [thing] whether about a universal taken universally or not, for instance, “every man is white,” “not every man is white,” “a man is white,” “a man is not white,” “no man is white,” “some man is white” when ‘white’ signifies one [thing].<sup>56</sup>

As I mentioned above (§ 3), affirmation and negation are species of proposition. “To signify one thing about one thing” means that the subject signifies one thing and the predicate signifies one thing.

Is a single proposition, then, an identity statement in which the subject and the predicate signify the same single thing? Boethius’ Latin translation of the first sentence of text (iii) is open to this interpretation. His translation “*Una autem est affirmatio et negatio quae unum de uno significat*” can be understood as “An affirmation or a negation that predicates one thing of the same one thing is *one*.” Boethius, however, rejects this interpretation.<sup>57</sup> In fact, Aristotle’s examples of single propositions in text (iii) are against it. In “The man is white,” the subject ‘the man’ signifies one substance and the predicate ‘white’ signifies one accident. In a single proposition, both the subject and the predicate signify single *things* (thus ‘*singula*’ not ‘*singulum*’).<sup>58</sup>

<sup>55</sup> *In PH*<sup>2</sup> 102.11–14.

<sup>56</sup> *PH*, ch. 8, 18a13–18: “μία δέ ἐστι κατάφασις καὶ ἀπόφασις ἡ ἐν καθ’ ἑνὸς σημαίνουσα, ἢ καθόλου ὄντος καθόλου ἢ μὴ ὁμοίως, οἷον πᾶς ἄνθρωπος λευκός ἐστιν—οὐκ ἐστι πᾶς ἄνθρωπος λευκός, ἐστιν ἄνθρωπος λευκός—οὐκ ἐστιν ἄνθρωπος λευκός, οὐδεὶς ἄνθρωπος λευκός—ἐστι τις ἄνθρωπος λευκός, εἰ τὸ λευκὸν ἐν σημαίνει” / 8.13–14: “*Una autem est affirmatio et negatio quae unum de uno significat, vel cum sit universale universaliter vel non similiter, ut ‘omnis homo albus est,’ ‘non est omnis homo albus,’ ‘est homo albus,’ ‘non est homo albus,’ ‘nullus homo albus est,’ ‘est quidam homo albus,’ si ‘album’ unum significat.*”

<sup>57</sup> *In PH*<sup>2</sup> 354.12.

<sup>58</sup> *In PH*<sup>1</sup> 100.9–12: “*Una enim affirmatio est, quae unam rem de una significat id est quae huiusmodi habet praedicatum et huiusmodi subiectum, ut utrumque singula significet.*”



The single things signified by the subject and the predicate of a single proposition are not necessarily individuals, such as ‘a man Socrates and his whiteness.’ The subject and the predicate can be plural in number as is claimed in Aristotle’s text (iii). The human being as a species is one thing (*una res*). In “Every man is white,” Boethius says, ‘every man’ does not signify many individual human beings but one collection of the properties of humanity.<sup>59</sup>

All the above examples of single propositions consist of two words, but the number of words in a proposition has nothing to do with the single vs. multiple distinction. The subject or the predicate of a single proposition can consist of more than one word. Boethius means this when he says, “There is such a case that one thing (*una res*) is predicated of one thing (*de una re*), but there is no single enunciation,”<sup>60</sup> and conversely, “Many things are predicated of one thing or one thing is predicated of many things, but a single enunciation is produced from all of these.”<sup>61</sup> In these statements, ‘things’ (*res*) stand for words themselves, not things signified by words. Spoken words (*voces*) themselves are ‘things’ (*res*) insofar as they exist outside the mind as vocal sounds.<sup>62</sup>

For example, “A man is a rational mortal animal (*animal rationale mortale homo est*),” which has three Latin words in the predicate, is a single proposition. This is because ‘a man’ signifies one thing, and ‘a rational mortal animal’ signifies one thing, which is formed of the rational, the mortal and the animal.<sup>63</sup> Two or more words signify one thing when the things signified by each of those words agree (*congruere*) in one form (*una species*).<sup>64</sup> “Socrates, snub-nosed, bald and aged philosopher” cannot be a single utterance, because Socrates, snub-nosed, bald and aged cannot make up one form. Socrates is a substance, but snub-nosed, bald, aged and a philosopher are accidents. Accidents exist in a substance, but

<sup>59</sup> In *PH*<sup>2</sup> 179.8–17.

<sup>60</sup> In *PH*<sup>2</sup> 352.5–6: “Est enim ut una quidem res de una re praedicetur et non sit una enuntiatio.”

<sup>61</sup> In *PH*<sup>2</sup> 352.6–8: “Potest item fieri ut vel plures de una re praedicentur vel una de pluribus, una tamen ex his omnibus enuntiatio fiat.”

<sup>62</sup> For Boethius’ use of ‘things’ (*res*) as extramental beings, see note 43 of Chapter 1.

<sup>63</sup> In *PH*<sup>2</sup> 355.11; 355.14.

<sup>64</sup> In *PH*<sup>2</sup> 356.7; 356.29. In the first commentary (In *PH*<sup>1</sup> 151.16–17; 151.23; 152.2–4), Boethius uses the following expressions in similar contexts: ‘form some single substance’ (*unam quandam substantiam informare*), ‘make up one nature’ (*in unam naturam facere*), ‘cause one body’ (*in unum corpus efficere*).

they are extrinsic to a substance,<sup>65</sup> so they cannot make up one form with a substance, whereas rationality and mortality are intrinsic to the animal, man.

A single proposition is not the same as an identity statement, but it is sometimes an identity statement as the above example, “A man is a rational mortal animal.” The subject and predicate of this sentence signify one and the same substance of man. In many examples, however, the single things signified are one substance *and* one accident. For instance, “A man is white” is a single affirmation in which the subject signifies a substance of man and the predicate signifies an accident of whiteness. A proposition like this may appear to signify two items, i.e., a substance and an accident, but Boethius says that it signifies ‘one thing’ (*una res*). Evidently the ‘one thing’ signified by a single proposition is not one thing under one category of being, e.g., substance, quality, quantity and so on. Probably the best expression in English for the notion of the ‘thing’ (*res*) is a ‘fact.’<sup>66</sup> “A man is white” signifies one fact that whiteness inheres in a man.<sup>67</sup> “A man is a rational mortal animal” signifies one fact that a man is identical to an animal that is rational but mortal. This is why this sentence is a single utterance. “Socrates, a snub-nosed, bald philosopher” signifies three facts, i.e., (i) Socrates has a snub-nose, (ii) he is bald, and (iii) he is a philosopher. That is why this phrase is a multiple utterance.<sup>68</sup>

### 5.2. Single Conditional Propositions

So far, Boethius’ account of single propositions basically follows Aristotle’s statements. A proposition is *one* when it signifies *one* thing, that is, *one* fact. An affirmation or a negation, in which the subject and predicate signify single things, is *one* because the proposition, as a whole, signifies a single fact.

<sup>65</sup> In *PH*<sup>2</sup> 103.30.

<sup>66</sup> Hence, I again (cf. note 142 of Chapter 4, p. 147) disagree with Chris Martin’s comment (1991: 283): “Facts and states-of-affairs will appear with, or shortly after, the appearance of propositional contents in order to explain their truth-values and logical relations. They play no role in Boethius’ account of meaning but along with a propositional logic they are found.” The use of ‘*res*’ as ‘a fact’ is very common in classical and post-classical Latin. In his earlier article (1987: 421), Martin himself renders Boethius’ ‘*res*’ as ‘a state of affairs.’

<sup>67</sup> See In *PH*<sup>2</sup> 122.7–15, especially 122.7–8: “Adfirmatio namque in duobus terminis constans, aliquid alicui inesse significat.”

<sup>68</sup> In *PH*<sup>2</sup> 102.11–14.

In Boethius' view, however, a single affirmation or a single negation does not exhaust all the types of single proposition. He calls some conditional sentences 'conditional propositions' or 'hypothetical propositions'.<sup>69</sup> For instance, "If it is day, it is light" is a conditional proposition because this sentence signifies something true.<sup>70</sup> According to Boethius, Porphyry does not regard "If it is day, it is light" as a single proposition because this proposition, being composed of two propositions, "It is day" and "It is light," appears to signify more than one fact (*res*).<sup>71</sup> Boethius dared to disagree with Porphyry and claims that a conditional proposition such as this example is also a single proposition.<sup>72</sup> This is because, he says, this proposition signifies 'one consequence' (*una consequentia*):

In addition to these, there is a proposition composed of propositions by a conjunction which signifies [as] a single sentence (*una oratio*), when I say, for instance, "If it is day, it is light." For there are two propositions, which are "It is day" [and] "It is light," and they are coupled by a conjunction 'if.' But this sentence does not signify many [things]. It does not propose 'being day' (*dies esse*) and 'being light' (*et lucem*), but "being day if it is light" (*si dies est, lucem esse*). Then, it signifies a certain consequence (*quaedam consequentia*), but not what is subject (*exstantia*) to the proposition. For, one does not say that the two exist (*esse utrasque*), but that if there is one, the other follows, because both of them agree (*congruit*) in, as it were, a single act of understanding (*intellegentia*).<sup>73</sup>

In this text, we only find the expression 'a certain consequence' (*quaedam consequentia*), but Boethius says 'one consequence' (*una consequentia*) later in his explanation.<sup>74</sup> First let's take a look at what he means by 'consequence' (*consequentia*) in this context. Boethius uses 'consequence' to mean a 'following' between two or more items of any kind: (i) between things or facts as well as (ii) between propositions. In his time this

<sup>69</sup> He says that 'conditional proposition' is a Latin name and 'hypothetical proposition' is a Greek name (*In PH*<sup>2</sup> 186.18–22).

<sup>70</sup> Recall that Boethius defines a proposition as a speech (*oratio*) signifying a truth-value (Chapter 1, § 1 and § 3 of this chapter).

<sup>71</sup> *In PH*<sup>2</sup> 110.10–11.

<sup>72</sup> *In PH*<sup>2</sup> 109.28–110.14.

<sup>73</sup> *In PH*<sup>2</sup> 109.28–110.10: "Est autem praeter has alia composita propositio ex propositionibus coniunctione coniuncta unam significans orationem, ut cum dico: si dies est, lux est. Duae enim propositiones, quae sunt istae dies est, lux est, si coniunctione copulantur. Sed haec oratio non significat multa. Neque enim diem esse et lucem proponit, sed si dies est, lucem esse. Quocirca consequentiam quandam significat, non exstantiam propositionis. Non enim dicit utrasque esse, sed si una est, aliam consequi, quod utrumque in unam quodammodo intellegentiam congruit."

<sup>74</sup> *In PH*<sup>2</sup> 110.14.

expression had not yet obtained the highly technical usage as an inferential relation between propositions, which it developed in the later Middle Ages.<sup>75</sup> In fact, we have seen an example of this ‘following’ in the first sense when Boethius claims that the causal order which starts with things and ends with written words is not a confused and random ‘following’ (*consequentia*).<sup>76</sup> Which meaning of ‘consequence’ is Boethius using here: (i) a relation between facts or (ii) a relation between propositions? The meaning of ‘consequence’ is also a question of source. There are two possible Greek sources of this expression in his commentaries on *Peri hermeneias*: (i) Aristotle’s ‘ἀκολουθήσις’ and (ii) the Stoics’ ‘ἀκολουθία’.

In chapter 13 of *Peri hermeneias*, Aristotle says,

With this treatment the ‘consequences’ (ἀκολουθήσεις) work out in a reasonable way. From “possible to be” follows “contingent to be” (and, reciprocally, the former from the latter) and “not impossible to be” and “not necessary to be.”<sup>77</sup>

Aristotle seems to call an implication relation among different propositions ‘consequence’ (ἀκολουθήσις). For example, he suggests, “It is possible that it rains” implies “It is contingent that it rains” and “It is contingent that it rains” implies “It is possible that it rains.”

On the other hand, a few scholars have pointed out that the Stoics’ ‘consequence’ (ἀκολουθία) is a relationship between the facts referred by propositions rather than a relationship between propositions.<sup>78</sup> Sextus Empiricus reports thus:

Hence, possessing the conception (ἔννοια) of ‘following’ (ἀκολουθία), he immediately grasps also the notion (νόησις) of a sign (σημείον) because of ‘following.’ For, the sign is itself of this form: ‘If this, then that.’<sup>79</sup>

<sup>75</sup> Bochenski 1961: 189. For a brief introduction to different theories of consequence in the later Middle Ages, see Boh 1982. For the history of their development, see Stump 1982 and Green-Pedersen 1984: 265–299. While Stump claims that the theories of ‘topics’ (τόπου/loci) play an important role in the development of the theory of consequences, Green-Pedersen (1984: 271) shows some hesitation about adopting this view.

<sup>76</sup> In *PH*<sup>2</sup> 20.30 (in text (β) of Chapter 3, § 4.1, note 69).

<sup>77</sup> *PH*, ch. 13, 22a14–17: “Καὶ αἱ ἀκολουθήσεις δὲ κατὰ λόγον γίνονται οὕτω τιθεμένοις· τῷ μὲν γὰρ δυνατῷ εἶναι τὸ ἐνδέχεσθαι εἶναι, καὶ τοῦτο ἐκείνῳ ἀντιστρέφει, καὶ τὸ μὴ ἀδύνατον εἶναι καὶ τὸ μὴ ἀναγκαῖον εἶναι.”/29.8–11: “Et consequentiae vero secundum ordinem fiunt ita ponentibus: illi enim quae est ‘possibile esse’ illa quae est ‘contingit esse’, et hoc illi convertit, et ‘non impossibile esse’ et ‘non necessarium esse’; illi vero quae est ‘possibile non esse’ et ‘contingere non esse’ ea quae est ‘non necessarium non esse’ et ‘non impossibile non esse’.”

<sup>78</sup> For example, see Reinhardt 2003: 310. Cf. Galen, *Inst.* XIV [7], 33.79–34.5.

<sup>79</sup> *Adv. math.* VIII 276 = SVF II 223 = LS 53T = FDS 529: “διόπερ ἀκολουθίας ἔννοιαν

It is true that Boethius assigns the word ‘consequence’ (*consequentia*) to ‘ἀκολουθήσις’ in his translation of Aristotle’s chapter 13 and uses this expression in his commentaries on this part of the work.<sup>80</sup> However, the context of his current discussion, which is about a conditional proposition, suggests that he has the Stoics’ ‘following’ (ἀκολουθία) in mind.<sup>81</sup>

It is unlikely that Boethius received the Stoics’ notion directly; he, however, must have had indirect access to it. Greek Aristotelian commentators employ the term ‘ἀκολουθία’ in their discussions about syllogisms.<sup>82</sup> In addition, Boethius surely knew Cicero’s *Topics* in which the Stoics’ notion can be found. In this work, Cicero says,

Next comes the topic which is peculiar to the dialecticians: from consequents, antecedents, and incompatibles. For conjunctions, which have just been discussed, do not always happen, but consequents (*consequentia*) always do. By ‘consequents,’ of course, I mean what follow a thing / fact (*res*) necessarily, and likewise antecedents and incompatibles (*repugnantia*). For whatever follows some thing is necessarily connected (*cohaeret*) with the thing; and whatever is incompatible is of such a nature (*modus*) that it can never be connected [with the thing].<sup>83</sup>

Cicero claims that ‘consequents’ (*consequentia*) are what follow a thing / fact (*res*) necessarily. His use of ‘consequent’ is influenced by the Stoics’ notion of ‘consequence’: a ‘following’ between two facts.<sup>84</sup>

In his commentary on Cicero’s *Topics*, Boethius defines a consequent (*consequens*) as “what is necessary to be if the thing whose consequent it is has gone before.”<sup>85</sup> As for ‘consequence’ (*consequentia*), he uses this

---

ἔχων εὐθύς καὶ σημείου νόησιν λαμβάνει διὰ τὴν ἀκολουθίαν· καὶ γὰρ αὐτὸ τὸ σημεῖον ἐστὶ τοιοῦτον· εἰ τόδε, τόδε.”

<sup>80</sup> In his historical survey of the notion of consequence, Bochenski says, “The name ‘*consequentia*’ is Boethius’ translation of Aristotle’s ἀκολουθήσις which occurs frequently in the *Hermeneia*” (1961: 189).

<sup>81</sup> Ebbesen (2003: 272) states that Boethius says ‘one *consequentia*’ translating from the Greek ἀκολουθία.

<sup>82</sup> For instance: Alexander, *In PrA* 7.1; 11.20; 17.30; Ammonius, *In PH* 67.13; *In PrA* 29.20–23.

<sup>83</sup> Cicero, *Top.* § 53, 142.1–7: “Deinceps est locus dialecticorum proprius ex consequentibus et antecedentibus et repugnantibus. Nam coniuncta, de quibus paulo ante dictum est, non semper eveniunt; consequentia autem semper. Ea enim dico consequentia quae rem necessario consequuntur; itemque et antecedentia et repugnantia. Quidquid enim sequitur quamque rem, id cohaeret cum re necessario; et quidquid repugnat, id eius modi est ut cohaerere numquam possit.”

<sup>84</sup> Reinhardt 2003: 232–237; 305–316, esp. 310.

<sup>85</sup> *In Cic. Top.* 347.9–10 = 1124c: “[I]tem consequens alicuius est, quod esse necesse est, si illud, cuius est consequens, praecessisse constiterit.”

expression with no definition, but it is obvious that he employs this term in the Stoics' sense. He gives the Stoics' favorite example of a conditional sentence: "If it is day, it is light."<sup>86</sup> Then, he mentions 'consequence of things' (*consequentia rerum*),<sup>87</sup> which I take to mean a necessary causal connection between one fact (e.g., it is day) and another (e.g., it is light). In addition, he says that a consequence is easily turned into an 'incompatibility' (*repugnantia*) by inserting a negation: "If it is day, it is not light."<sup>88</sup> The Stoics often treat 'incompatibility' (*repugnantia*/μᾶχῃ) together with 'consequence.'<sup>89</sup>

Boethius' discussion in *On Hypothetical Syllogisms* supports my interpretation of 'consequence' to mean a necessary causal connection between two facts rather than an inferential relation between two propositions. He argues that conditional propositions are formed in two ways: (i) accidentally (*secundum accidens*) and (ii) in such a way that they involve a determinate 'consequence of nature' (*consequentia naturae*).<sup>90</sup> His example of the first is: "If fire is hot, the heavens are spherical."<sup>91</sup> It is true that fire is hot and that the heavens are spherical in this world; this conditional sentence, therefore, is always true, but these two facts are essentially irrelevant to each other. Later in the Middle Ages, such conditional sentences and inferences expressed by them are called 'accidental consequences' (*consequentiae accidentales*),<sup>92</sup> but Boethius himself never calls them 'consequences.' His examples of the second are "If he is a man, he

<sup>86</sup> *In Cic. Top.* 348.2–4 = 1125b–c. E. Stump (1988: 125) translates the expression as 'inference of things.'

<sup>87</sup> *In Cic. Top.* 348.4–5 = 1125c.

<sup>88</sup> *In Cic. Top.* 348.4–10 = 1125c.

<sup>89</sup> The Greek commentators and Cicero do so as well. For example, Alexander, *In PrA* 11.20; 264.33. Note also that Cicero mentions 'incompatibles' together with 'consequents' (see his text cited on p. 165).

<sup>90</sup> *De hyp. syll.* 218.52–54 = 835b. The expression 'consequence of nature' is in his *In Cic. Top.* 347.19–20 = 1124d; also in Gellius' *Noctes atticae* XII, v [10] 369.30–370.5: "Quia enim omnia, quae non sunt mala, molestia quoque omni non carent, sed sunt pleraque noxa quidem magna et pernicie privata, quia non sunt turpia, contra naturae tamen mansuetudinem lenitatemque opposita sunt et infesta per obscuram quandam et necessariam ipsius naturae consequentiam." Cf. Boethius' definition of nature: "Natura est earum rerum quae, cum sint, quoque modo intellectu capi possunt" (*Contra Eutychem* 1, 209.66–67).

<sup>91</sup> *De hyp. syll.* 218.55–56 = 835b.

<sup>92</sup> Robert Kilwardby, Nicholas of Paris and some anonymous writers began to make this distinction, which became popular among logicians (e.g., Walter Burley, *De puritate logicae*, 60–61). They contrast 'accidental consequences' with 'natural consequences.' For these terms, see Green-Pedersen 1984: 278.

is an animal” and “If screening by the earth occurs, an eclipse follows.”<sup>93</sup> The former example involves a consequence of nature in such a way that the consequent (“he is an animal”) is the cause of the antecedent (“he is a man”); the genus, i.e., animal, is the cause of the species, i.e., man.<sup>94</sup> On the other hand, the latter example involves a consequence of nature in such a way that the antecedent (“screening by the earth occurs”) is the cause of the consequent (“an eclipse follows”).<sup>95</sup>

To confirm my interpretation of ‘consequence,’ let us revisit Boethius’ discussion of a single conditional proposition in his second commentary on *Peri hermeneias*. In the cited text,<sup>96</sup> he claims that “If it is day, it is light” is a single sentence because it signifies a single consequence. In this sentence that he mentions also in his commentary on Cicero’s *Topics*, the antecedent (“it is day”) is the cause of the consequent (“it is light”), and the consequence is a necessary causal connection. In addition, he regards the conditional proposition “If he is a man, he is an animal” as a single sentence.<sup>97</sup> He would say that this sentence also signifies a single consequence and that the consequence is a necessary causal connection. As he says in *On Hypothetical Syllogisms*, the consequent (“he is an animal”) is the cause of the antecedent (“he is a man”).

Boethius does not mention disjunctive propositions in his discussion of single propositions, but there are reasons to believe that he includes some of them in single conditional propositions.<sup>98</sup> He regards the disjunctive proposition as a species of the conditional proposition because he states that all conditional propositions are either ‘connective’ (“If ..., then ...”), or ‘disjunctive’ (“Either ..., or ...”).<sup>99</sup> Moreover, he suggests that the two propositions “It is day” and “It is not light” can form a single proposition by adding such a condition that makes the proposition signify an incompatibility.<sup>100</sup> I think that the ‘incompatibility’ means a necessary causal conflict and that the exclusive conjunction ‘or’ (*autem*)

<sup>93</sup> *De hyp. syll.* 220.64 = 835c; 220.73 = 835d. An eclipse is an example that Aristotle also uses in *PoA* II, ch. 8, 93a14 sqq.

<sup>94</sup> *De hyp. syll.* 220.67 = 835c; *In Isag.*<sup>2</sup> 158.9.

<sup>95</sup> For this understanding, I am indebted to Martin (2007: 157).

<sup>96</sup> *In PH*<sup>2</sup> 109.28–110.10 (see note 73 of this chapter).

<sup>97</sup> *In PH*<sup>2</sup> 97.4–6.

<sup>98</sup> Martin (2009: 66) says, “He [Boethius] limits the power to unify to the connectives employed to form compound propositions to the conditional conjunction ‘if,’ and the disjunctive conjunction ‘or.’” He, however, offers no textual evidence for this claim.

<sup>99</sup> *In Cic. Top.* 353.42–45 = 1130d.

<sup>100</sup> *In Cic. Top.* 348.34–37 = 1126a–b: “Etiam ex illis propositionibus, quae sunt [Migne: quoniam duae sunt ex illis quoque propositionibus quae sunt], dies est, lux non est,

can express such a condition; the two propositions can make up a single disjunctive proposition “Either it is day or it is not light” (*Dies est aut non lux est*).

It becomes clear that the notion of causality is crucial to his interpretation of single conditional propositions. In fact, Boethius seems to believe that causality is *somehow* involved in *every* conditional proposition. I say ‘somehow’ because he acknowledges that “If fire is hot, the heavens are spherical” is a conditional proposition. It is possible to say that causality is involved accidentally in this proposition, not essentially. In *On Hypothetical Syllogisms*, he states that ‘*cum*’ is equivalent to ‘*si*’ in conditional propositions when it means ‘because’ (*quia*).<sup>101</sup> This statement implies that he takes ‘if’ (*si*) in logic to mean ‘because,’ not in our sense of ‘if,’ which introduces some condition, whether it is realizable or not.

Considering this peculiar sense of ‘if,’ I will explicate his notion of logical conjunctions more precisely. In the previous chapter, I said that Boethius’ notions of the logical conjunctions ‘if’ and ‘or’ roughly correspond to the notions of implication ‘ $\rightarrow$ ’ and disjunction ‘ $\vee$ ,’ and that ‘or’ more precisely corresponds to the notion of exclusive disjunction ‘ $\vee$ .’ I spelled this out by using modern truth-tables, below.

A	B	$A \rightarrow B$	$A \vee B$	$A \vee B$
T	T	T	T	F
T	F	F	T	T
F	T	T	T	T
F	F	T	F	F

The modern-notion of implication (‘ $\rightarrow$ ’) accepts any type of condition as its antecedent and any type of state or event as its consequent. The relevance between the antecedent and the consequent should not matter. Nor do the possibility and the impossibility of the antecedent and the consequent matter. Many contemporary philosophers have criticized this fact because it creates consequences counterintuitive to our natural uses of the words ‘if’ and ‘implication.’ For instance, “If all squares are round, the earth is round” is true in the truth-table because the antecedent is evidently false but the consequent is evidently true. Boethius probably would not accept a proposition like this as a conditional proposition.

---

una esse non poterit, nisi conditionis adiunctione in unius quodammodo propositionis sententiam reducantur, cuius propositionis partes sint [Migne: sunt] repugnantes.”

<sup>101</sup> *De hyp. syll.* 218.51–52 = 835b.



He seems to hold that the antecedent and the consequent of a conditional proposition are somehow related,<sup>102</sup> and moreover, that the relation is not merely conceptual but causal. Therefore, what is signified by the conjunction 'if' is not simply 'material-implication' but rather 'strict-implication' or 'causal-implication.'<sup>103</sup> It should be noted that 'causal-implication,' unlike its modern usage, includes cases where the consequent causes the antecedent in addition to cases where the antecedent causes the consequent.

While the logical conjunction 'if' signifies a causal connection, the logical conjunction 'or' signifies a causal conflict where facts A and B cannot coexist. This explains why Boethius basically has an exclusive disjunction ( $A \vee B$ ) in mind when he talks about a disjunctive proposition.<sup>104</sup>

A necessary causal connection ('consequence') and a necessary causal conflict ('incompatibility') are fully qualified to be single facts.<sup>105</sup> Thus the semantic unity of conditional propositions grounds on the unity of things/facts (*res*) just as it does for affirmations and negations (§ 5.1). The signification of a single conditional proposition presumably occurs like this.<sup>106</sup> There are necessary causal connections and conflicts in the world. The mind understands one of them and expresses it in spoken words. The spoken words, which constitute a single conditional proposition, signify the 'single act of understanding' (*una intellegentia*).<sup>107</sup> By the mediation of the act of understanding, those words signify a single fact, either a necessary causal connection or a necessary causal conflict. To signify the act of understanding is the same act as to signify the fact, which is together called 'one signification' (*una significatio/significatio*).<sup>108</sup>

The reference to reality (*res*) explains why the conjunction 'and' cannot make a single proposition. When a proposition has 'and' as a logical conjunction (note that the 'and' in "A man is a rational and mortal animal" is

<sup>102</sup> Martin (1999: 282) suggests the inseparability between the antecedent and the consequent in Boethius' logic.

<sup>103</sup> I take the expression 'causal implication' from Hackstaff 1966: 21. For the interpretation of Boethius' implication-relation as 'strict implication,' see Green-Pedersen 1984: 276.

<sup>104</sup> See Chapter 4, § 4.

<sup>105</sup> Ebbesen 2003: 273: "A fact that can be described in a conditional is at least as good a fact as one describable in a categorical proposition."

<sup>106</sup> Recall Boethius' first semantic thesis (BoST<sub>1</sub>) and his two semantic principles (BoSP<sub>1</sub> and BoSP<sub>2</sub>) in Chapters 1 and 3.

<sup>107</sup> See the text cited on p. 163, note 73.

<sup>108</sup> In PH<sup>2</sup> 108.2; In PH<sup>2</sup> 179.17.

not a logical conjunction), it can only be a multiple proposition. ‘If’ ‘or’ ‘and’—all these conjunctions have the ‘force of a proposition’ insofar as they function as logical conjunctions.<sup>109</sup> The ‘force of a proposition’ is not the same as the force of unifying a proposition. In other words, the function of specifying the truth-conditions of a proposition is not the same as the function of making a semantically single proposition. The conjunction ‘and’ can possess the former but not the latter. This is because the semantic unity has its foundation in facts (*res*) whereas the truth-value has its origin in the composition or division of thoughts (*intellectus*).<sup>110</sup> We can combine or divide thoughts as we like, but we cannot change facts and the laws of nature at our will. We can make single propositions because there are factual unities in the extramental world. The conjunctions ‘if’ and ‘or’ serve to express such factual unities that occur according to the laws of nature.

### 6. Simple vs. Composite

Having finished the analysis of his ‘single vs. multiple’ distinction, I will move on to another pair: ‘simple vs. composite.’ As I have introduced above (§ 4), Boethius says that ‘dictions’ or ‘terms’ determine whether speech is simple or composite. He claims that the *number* of terms is crucial for a proposition to be simple or composite: “If a proposition has more than two terms, it is composite, and if it has only two, it is simple.”<sup>111</sup> This couple of distinctions is associated with Aristotle’s other division of propositions: a ‘simple’ proposition and a proposition ‘composed’ of simple propositions.<sup>112</sup>

In explaining the criterion for simple and composite speech, Boethius gives a few examples.<sup>113</sup> Let us first think what he means by ‘term’ by looking at these examples. (i) “Man lives” (*homo vivit*) is a simple proposition, because it has two terms. (ii) “Every man lives” (*omnis homo vivit*),

<sup>109</sup> See Chapter 4, § 4.

<sup>110</sup> See Chapter 1, § 3.3 and Chapter 3, § 3.4.

<sup>111</sup> *In PH*<sup>2</sup> 107.27–29: “Si enim ultra duos terminos habet propositio, composita est, sin duos tantum, simplex.” He says that a simple proposition is the one that consists of two terms in *In PH*<sup>1</sup> 128.29–129.2.

<sup>112</sup> *PH*, ch. 5, 17a20–22: “τούτων δ’ ἡ μὲν ἀπλῆ ἐστὶν ἀπόφανσις, οἷον τί κατὰ τινὸς ἢ τί ἀπὸ τινός, ἡ δ’ ἐκ τούτων συγκεμένη, οἷον λόγος τις ἤδη σύνθετος.”/9.4–7: “Harum autem haec quidem simplex est enuntiatio, ut aliquid de aliquo vel aliquid ab aliquo, haec autem ex his coniuncta, velut oratio quaedam iam composita.”

<sup>113</sup> *In PH*<sup>2</sup> 107.12–22.

“No stone lives” (*nullus lapis vivit*) and “Some man lives” (*aliquis homo vivit*) are also simple propositions, because they have two terms. (iii) “Plato, a philosopher, walks to the Lyceum” (*Plato philosophus ambulat in lyceum*) is a composite proposition, because it has four terms. (iv) “Plato, a philosopher, walks” (*Plato philosophus ambulat*) is a composite proposition, because it has three terms. Examples (ii) (iii) reveal that ‘term’ is not identical to ‘word,’ for (ii) has three words but two ‘terms,’ and (iii) has five words in Latin but four ‘terms.’

### 6.1. ‘Term’ (Terminus)

What is a ‘term’ if not simply a ‘word’? In his second commentary on *Peri hermeneias*, Boethius does not define it, but any student of Aristotle’s logical works would recall Aristotle’s definition in *Prior Analytics*:

I call that ‘a term’ (ὅρος) into which a premise (πρότασις) is resolved, i.e., both that which is predicated and that of which it is predicated, ‘to be’ or ‘not to be’ being added or being separated.<sup>114</sup>

In his translation of *Prior Analytics*, Boethius translates ‘a term’ (ὅρος) as ‘terminus.’<sup>115</sup> He may have written a commentary on *Prior Analytics*, but if so, most of it has been lost.<sup>116</sup>

Boethius, however, explains ‘term’ in his first commentary on *Peri hermeneias*:

Terms are nouns and verbs, which we predicate in a simple proposition, for instance, in “Socrates disputes,” ‘Socrates’ and ‘disputes’ are ‘terms.’ The minor term introduced in the enunciation, e.g., ‘Socrates,’ is called ‘subject’ and is placed first. The major term, e.g., ‘disputes,’ is predicated and placed later. Hence, any proposition formed of one subject and one predicate is named ‘simple enunciation.’<sup>117</sup>

<sup>114</sup> *PrA* I, ch. 1, 24b16–18 (according to Boethius’ reading; Ross deletes ‘ἡ διακρινόμενου’): “Ὅρον δὲ καλῶ εἰς ὃν διαλύεται ἡ πρότασις, οἷον τό τε κατηγορούμενον καὶ τὸ καθ’ οὗ κατηγορεῖται, προστιθεμένου ἢ διακρινόμενου τοῦ εἶναι ἢ μὴ εἶναι.”/6.10–12: “Terminum vero voco in quem resolvitur propositio, ut praedicatum et de quo praedicatur, vel apposito vel divisio esse et non esse.”

<sup>115</sup> See the previous note.

<sup>116</sup> For the lost commentary, see Ebbesen 1981b and Shiel 1982.

<sup>117</sup> *In PH*<sup>1</sup> 77.7–15: “Termini autem sunt nomina et verba, quae in simplici propositione praedicamus, ut in eo quod est Socrates disputat, Socrates et disputat termini sunt. Et qui minor terminus in enunciatione proponitur, ut Socrates, subiectus dicitur et ponitur prior; qui vero maior, praedicatur et locatur posterior, ut disputat. Quaecumque ergo propositio ex uno subiecto et ex uno praedicato facta est, illa simplex enuntiatio nuncupatur.”

Boethius says that nouns and verbs are terms. There are two kinds of terms: major and minor terms. A major term is a verb that is predicated. A minor term is a noun that is a subject. The proposition formed of two terms, i.e., one subject and one predicate, is called ‘simple enunciation.’ In this explanation, we can identify two ways of defining ‘terms’: (def. 1) terms are nouns and verbs, and (def. 2) terms are the subject and the predicate of a proposition. Here he proposes (def. 1) explicitly but suggests (def. 2) as well. (Def. 2) is closer to Aristotle’s original presentation of ‘term’ in *Prior Analytics*. In Boethius’ monographs on logic, we can see the two definitions:

(i) Nouns and verbs are named by dialecticians ‘terms’ of speech. They are called ‘terms’ because the analysis into parts of speech terminates in a verb and a noun.<sup>118</sup>

(ii) We call these parts of simple enunciations, that is a predicate and a subject, ‘terms.’<sup>119</sup>

In the sentence “Socrates disputes,” the noun and the verb are also the subject and the predicate of the sentence. In this type of sentence, which consists of a noun and a verb, the two definitions hardly make any difference in counting ‘terms.’ As I will confirm later (§ 6.3), this type of proposition is a simple declarative sentence, which Boethius claims is the subject of *Peri hermeneias*. In the following cases, however, the difference between the two definitions becomes conspicuous.

The subject and the predicate of a sentence can be phrases and even sentences, which consist of more than one noun and one verb: for instance, “The snub-nosed philosopher is Socrates, a son of Sophroniscus” and “That she met him in the school was fortunate.” Hence, a ‘term’ by (def. 2) includes some linguistic units in addition to a noun and a verb. In his commentary on Cicero’s *Topics*, Boethius acknowledges that the phrases ‘the collapse or disrepair of a house whose usufruct was bequeathed’ (*aedium, quarum ususfructus legatus sit, ruina vel vitium*)

<sup>118</sup> *De cat. syll.* 13.18–20 = 797a: “Termini uero orationis a dialecticis nominantur nomina et uerba. Termini uero dicti sunt, quod usque ad uerbum et nomen resolutio partium orationis fiat.” Alexander makes a similar statement in *In PrA* 14.28–29: “εἰσὶ δὲ ὄροι ἐν ἀπλῇ προτάσει ὄνομα καὶ ῥῆμα.”

<sup>119</sup> *Introd. cat. syll.* 24.18–19 = 768d: “Has uero simplicium enuntiationum partes, id est praedicatum atque subiectum terminos appellamus.” Alexander makes a similar statement in *In PrA* 15.1–3: “ἔστι δὲ ὁ μὲν, καθ’ οὗ κατηγορεῖται, ὁ ὑποκειμένος ὄρος, περὶ οὗ καὶ ὁ λόγος γίνεται, ὁ δὲ κατηγορούμενος ὁ επιφερόμενος τῷ ὑποκειμένῳ καὶ λεγόμενος περὶ αὐτοῦ.” There is also a similar statement in Ammonius, *In PH* 7.32–8.4.

and 'restoration by the heir' (*ab herede restitutio*), can be a subject and a predicate of a sentence.<sup>120</sup> He says that the former phrase (*oratio*) is the subject 'just as a sort of a term' (*veluti quidam terminus*),<sup>121</sup> while the latter phrase, 'put in the place of a term' (*loco termini constituta*), is the predicate.<sup>122</sup> In *On Categorical Syllogism*, he acknowledges that 'every man' and 'is an animal' can be 'terms' in the proposition "Every man is an animal," although he notes that this is not the principal way of dividing the proposition.<sup>123</sup> In the principal way, he says, 'man' (*homo*) and 'an animal' (*animal*) are the terms of this proposition.<sup>124</sup>

Thus (def. 1) and (def. 2) do not mean exactly the same thing. To count 'terms' for the simple vs. composite distinction, we should clearly adopt (def. 1): terms are nouns and verbs. Take one of his examples: "Plato, a philosopher, walks to the Lyceum." Boethius says that there are four terms in this sentence,<sup>125</sup> and in Latin there are three nouns and one verb in it. If we took 'terms' simply as a subject and a predicate of a sentence, the sentence would have only two terms, i.e., 'Plato a philosopher,' and 'walks to the Lyceum.'

There remains some difficulty in the application of (def. 1), as we cannot always identify a 'term' correctly with it alone. As we have seen above, terms of the proposition "Every man is an animal" are 'man' and 'animal.' If we apply (def. 1) to this proposition, the adjective 'every' and the verb 'is' would be also 'terms'—recall once again the fact that an adjective was 'a noun'—but Boethius does not acknowledge them as 'terms' nor does he explain why.

Despite his silence, it is possible to interpret the reason for this exclusion and reconstruct a more accurate definition of his 'term.' Boethius obviously holds that the preposition 'to' (*in*) does not signify by itself because he classifies prepositions into 'supplements of speech.'<sup>126</sup> Moreover, Aristotle claims that the verb 'to be' and words such as 'every' and 'no' 'co-signify' in *Peri hermeneias*.<sup>127</sup> In these contexts, Aristotle uses

<sup>120</sup> *In Cic. Top.* 300.6–9 = 1072a–b. In the same work, he mentions 'to commit a theft' (*furtum facere*) as an example of a predicate (*In Cic. Top.* 283.37 = 1055a) and 'to cross over into Africa' (*transire in Africam*) and 'advantageous for the Romans' (*utile Romanis*) as the subject and the predicate of a sentence (*In Cic. Top.* 353.25–26 = 1130d).

<sup>121</sup> *In Cic. Top.* 300.7 = 1072a.

<sup>122</sup> *In Cic. Top.* 300.8 = 1072b.

<sup>123</sup> *De cat. syll.* 16.5–8 = 798a–b.

<sup>124</sup> *De cat. syll.* 15.17–16.5 = 797d–798a.

<sup>125</sup> *In PH*<sup>2</sup> 107.20–21.

<sup>126</sup> See Chapter 4, § 2.2.

<sup>127</sup> *PH*, ch. 3, 16b24 and ch. 10, 20a13.

‘co-signify’ in the first sense<sup>128</sup> and thus means that these expressions ‘signify something in combination with something else.’ As a faithful commentator on Aristotle, Boethius is likely to have similar ideas: the verb ‘to be’ and the adjective ‘every’ do not signify by themselves. In the next chapter, I will argue that he does indeed follow Aristotle here. Thus a more accurate definition of Boethius’ ‘term’ would be a part of speech, that is, a spoken word (*vox*) significant by itself (as we saw in Chapter 4, § 2.2). I call this Boethius’ ‘third definition of a term’ (def. 3).<sup>129</sup>

## 6.2. ‘Diction’ (Dictio)

Boethius claims that ‘dictions’ or ‘terms’ determine speech to be *one* or composite, but his explanation rarely uses the expression ‘diction.’ What does ‘diction’ (*dictio*) mean in this context?

Boethius assigns the Latin word ‘*dictio*’ to the Greek word ‘φάσις.’<sup>130</sup> In chapter 4 of *Peri hermeneias*, Aristotle says,

Speech is a significative spoken sound some part of which is significative in separation as a diction (φάσις), not as an affirmation.<sup>131</sup>

In explaining this sentence, Boethius introduces the interpretations of ‘diction’ by two commentators, Alexander of Aphrodisias and Porphyry. Their understanding slightly differs,<sup>132</sup> and Boethius endorses Porphyry’s.

According to Porphyry, there are three groups of linguistic expressions that can be called ‘dictions’: (i) simple and composite nouns and verbs (e.g., ‘horse’, ‘pirate-boat’, ‘run’), (ii) phrases (e.g., ‘a philosopher in the armchair’), and (iii) affirmations and negations (e.g., “The snow is white”; “The crow is not white”).<sup>133</sup> The category of (iii) affirmations

<sup>128</sup> For two senses of ‘co-signify’, see Chapter 4, § 3.2, p. 133.

<sup>129</sup> William of Ockham delineates three definitions of a term in *Summa logicae* (I, c.2). Part of his definitions overlaps with Boethius’, but there are striking differences.

<sup>130</sup> In *PH*<sup>2</sup> 5.7.

<sup>131</sup> *PH*, ch. 4, 16b26–28: “Λόγος δέ ἐστι φωνή σημαντική, ἥς τῶν μερῶν τι σημαντικόν ἐστι κειρωμένον, ὡς φάσις ἀλλ’ οὐχ ὡς κατάφασις.” / 7.20–8.1: “Oratio autem est vox significativa, cuius partium aliquid significativum est separatum (ut dictio, non ut affirmatio).”

<sup>132</sup> In *PH*<sup>2</sup> 85.19–87.6.

<sup>133</sup> In *PH*<sup>2</sup> 85.24–28. I disagree with David Blank’s explanation of Porphyry based upon this text (note that Blank translates ‘*dictio*’ as ‘expression’): “Porphyry agrees, except he says that an expression is a name or verb (either simple or compound) or in an incomplete sentence, but not a complete sentence” (1996: 153, n. 222). Boethius first mentions Alexander’s interpretation that nouns, verbs and complete sentences are

and negations does not include propositions composed of two or more propositions such as “If it is day, it is light.” The only difference between Alexander and Porphyry is that Alexander ignores (ii) phrases,<sup>134</sup> which Boethius calls ‘imperfect speech’ (see § 2).

Thus by his definition, ‘dictions’ include phrases and sentences.<sup>135</sup> In his discussion of simple *vs.* composite speech, however, Boethius says that he calls dictions ‘terms,’<sup>136</sup> and, therefore, ‘terms’ and ‘dictions’ are the same linguistic items. As is shown above (§ 6.1), the ‘terms’ in the discussion are nouns and verbs. The ‘dictions’ are, then, restricted to (i) nouns and verbs, which he calls ‘simple dictions’ (*simplices dictiones*).<sup>137</sup>

### 6.3. *The Simple Proposition*

Now that we’ve seen these analyses of ‘term’ and ‘diction,’ we can look at the definition of a simple proposition, which Boethius focuses on in his commentaries on *Peri hermeneias*. As has been mentioned since Chapter 1,<sup>138</sup> Boethius holds that the subject of *Peri hermeneias* is the simple declarative sentence, i.e., the simple proposition.

Jonathan Barnes explains Boethius’ simple proposition: “Roughly speaking a proposition is simple if it does not contain two or more propositions as parts; a proposition is complex if it does contain two or more propositions as parts.”<sup>139</sup> This explanation, however, is misleading because he considers the simple *vs.* composite distinction in terms of propositions.

---

‘dictions.’ Then, he suggests that Porphyry differs from Alexander only in that he says incomplete sentences are also ‘dictions.’ After this, he adds that complete sentences are also ‘dictions.’ In this explanation, it is clear that Porphyry holds the view that complete sentences are dictions.

<sup>134</sup> In *PH*<sup>2</sup> 85.19–86.6.

<sup>135</sup> In contrast, Priscian defines ‘dictions’ as single words, not phrases and sentences. See Priscian, *Inst.* II, 53.8–12: “Dictio est pars minima orationis constructae, id est in ordine compositae; pars autem, quantum ad totum intellegendum, id est ad totius sensus intellectum; hoc autem ideo dictum est, ne quis conetur ‘vires’ in duas partes dividere, hoc est in ‘vi’ et ‘res’, vel quaedam huiusmodi. Non enim ad totum intellegendum haec fit divisio.”

<sup>136</sup> In *PH*<sup>2</sup> 100.6–9: “Sit enim huiusmodi propositio, quae est ‘sol oritur’: in hac ergo propositione quod dico ‘sol’ subiectum est, quod vero dico ‘oritur’ praedicatur. Et utraque has dictiones ‘terminos’ voco.”

<sup>137</sup> In *PH*<sup>2</sup> 85.8.

<sup>138</sup> See p. 17. See also Chapter 4, § 2.2, pp. 124–125.

<sup>139</sup> Barnes 1981: 82.

We have seen that Boethius makes the following claims:

- (i) A proposition is simple if it has just two terms.<sup>140</sup>
- (ii) A 'term' is a noun or a verb.<sup>141</sup>
- (iii) A proposition is a sentence signifying a truth-value.<sup>142</sup>
- (iv) A verb specifies the truth-conditions of a proposition.<sup>143</sup>

Given these conditions (i)~(iv), a simple proposition consists of two terms, a verb which specifies the truth-conditions and a second term, usually a noun.<sup>144</sup> Boethius's own statement warrants this interpretation: "Simple enunciations are affirmations or negations, which are composed of single verbs and single nouns."<sup>145</sup>

However, Boethius' statements in his first commentary on *Peri hermeneias* and two monographs on logic contradict the interpretation now presented.

In the beginning of his first commentary, Boethius says that a simple proposition is a sentence with a truth-value but no conjunction.<sup>146</sup> He contrasts a simple proposition with a conditional proposition,<sup>147</sup> which has a conjunction. Then, as an example of a simple proposition, he gives "A terrified man runs" (*homo pavidus currit*).<sup>148</sup> Given that an adjective was regarded as a noun,<sup>149</sup> this sentence has three terms, i.e., two nouns and one verb, and, therefore, it should be 'a composite proposition' according to his second commentary. But he classifies it as 'a simple proposition' in the beginning of his first commentary. In *Introduction to Categorical Syllogisms*, he says that a composite enunciation is one in which two simple propositions are coupled by a condition (e.g., "Plato,

<sup>140</sup> See § 6 of this chapter.

<sup>141</sup> See § 6.1 of this chapter.

<sup>142</sup> See § 1 of Chapter 1 and § 3 of this chapter.

<sup>143</sup> Text (b) cited in Chapter 4, § 4 is the crucial text for this interpretation.

<sup>144</sup> He would regard a proposition consisting of two verbs, for instance, "To walk is to move" as a simple proposition. He mentions this example as one that has a verb in the position of the predicate in *In PH*<sup>2</sup> 100.22–23. While Ammonius (*In PH* 45.29–31; 50.15–19) argues that infinitives of verbs are nouns rather than verbs, Boethius does not make this kind of argument.

<sup>145</sup> *In PH*<sup>2</sup> 86.7–9: "Simplices ergo enuntiationes sunt adfirmationes vel negationes, quae singulis verbis ac nominibus componuntur."

<sup>146</sup> *In PH*<sup>1</sup> 34.4–6.

<sup>147</sup> *In PH*<sup>1</sup> 34.7–8. In addition to 'conditional' and 'hypothetical,' he here mentions 'duplex,' but this term does not come up again in his commentaries on *Peri hermeneias*.

<sup>148</sup> *In PH*<sup>1</sup> 34.9–12.

<sup>149</sup> See Chapter 3, § 3.2, p. 88 and Chapter 4, § 3.2, p. 134.



if he is learned, is a philosopher”); while a simple enunciation states “something is/is not” without a condition (e.g., “Plato is a philosopher”).<sup>150</sup> His examples of simple and non-simple declarative sentences in *On Categorical Syllogism* agree with the definitions of simple and composite enunciations in the *Introduction*. “It is day” and “It is light” are simple declarative sentences while “If it day, it is light” is a non-simple declarative sentence.<sup>151</sup>

I think that these contradictory explanations are due either to the immaturity of Boethius’ thought or his decision to offer a basic explanation for the first commentary and the monographs on logic, which are concise.<sup>152</sup> Only in the second commentary, does he present clear criteria for single (*unum*) vs. simple (*simplex*) and multiple (*multiplex*) vs. composite (*compositum*) propositions.<sup>153</sup>

Barnes’s comment about Boethius’ simple and composite propositions tallies with the Stoics’ notion of simple and non-simple propositions (οὔχ ἀπλᾶ ἀξιώματα) and with Boethius’ earlier or simpler notion of these propositions but not with his mature or more complex view in the second commentary.<sup>154</sup> ‘Non-simple propositions’ in the Stoic sense are, to put it concisely, those composed of two or more propositions; the constituents of the proposition are combined by one or more propositional connectives.<sup>155</sup> The difference between Boethius and the Stoics shows the distance between their logics. Boethius’ distinction between simple and composite propositions relies upon the number of nouns and verbs contained in propositions. The Stoics, on the other hand, make the distinction according to the number of propositions, that is, the number of subjects and predicates that make up sentences in propositions. This implies that the noun-verb distinction is more essential to his logical analysis than the subject-predicate distinction is.

<sup>150</sup> *Introd. cat. syll.* 21.7–10 = 767c–d.

<sup>151</sup> *De cat. syll.* 15.7–9 = 797c.

<sup>152</sup> As Thörnqvist (2008b: 129) suggests, Boethius perhaps followed models in Porphyry’s work(s) in his earlier works.

<sup>153</sup> For his discussion in the first commentary, see § 4, pp. 157–158.

<sup>154</sup> Some scholar claims that *Introduction to Categorical Syllogisms* is written after the second commentary (see Chart 2, p. xix). If it is true, we cannot simply adopt the developmental view of Boethius’ thought and we should consider the purpose of each work.

<sup>155</sup> For definitions of simple and non-simple propositions among the Stoics, see DL VII 68–69, Goulet 1978 and Bobzien 2003: 92–99.

7. *The Combined Distinctions*

To recapitulate the two couples of distinctions discussed in the previous sections (§§ 5–6), the single *vs.* multiple distinction is based upon the number of the things/facts (*res*) signified by an utterance while the simple *vs.* composite distinction is based upon the number of terms, i.e., nouns and verbs, contained in an utterance. The single *vs.* multiple distinction, which is made in terms of *significatum*, is unquestionably semantic.

On the other hand, is the simple *vs.* composite distinction merely grammatical? Indeed Boethius says that simple and composite utterances should not be referred to signification.<sup>156</sup> He does not mean, however, that the simple *vs.* composite distinction is completely indifferent to signification. He claims that simple speech has two terms and composite speech has more than two terms. By ‘terms’ he means nouns and verbs, that is, spoken words significant by themselves. Thus only words with independent signification matter to the simple *vs.* composite distinction and other words do not count. Signification is irrelevant to this distinction only in the sense that what speech signifies—either one fact or two facts or more—does not matter, as long as it contains two or more words significant by themselves. We should say that the simple-multiple distinction is also a semantic distinction.

Combining the single *vs.* multiple and the simple *vs.* composite distinctions, Boethius proposes four types of propositions: (a) single simple propositions, (b) single composite propositions, (c) multiple simple propositions, and (d) multiple composite propositions. As for composite propositions [(b) and (d)], he divides them further into those with and without conjunctions.<sup>157</sup> He further divides (d) multiple composite propositions according to what the composition is made of, either terms or propositions.<sup>158</sup> In the next page, I furnish a synopsis of his lengthy and diverse discussion of the unity of propositions and these distinctions in his second commentary on *Peri hermeneias*.

<sup>156</sup> In *PH*<sup>2</sup> 107.8–12 (text (b) in § 4 = note 49 of this chapter).

<sup>157</sup> In *PH*<sup>2</sup> 108.9–25.

<sup>158</sup> In *PH*<sup>2</sup> 109.22–28.

(a) Single Simple Propositions	e.g. "Man lives." "Every man lives." "No stone lives." "The sun rises." "Every man is an animal."
(b) Single Composite Propositions	
(b-i) with a conjunction	e.g. "If it is day, it is light." "If it is a man, it is an animal."
(b-ii) without a conjunction	e.g. "It is a rational mortal animal." "It is a rational animal perceptible of mind and discipline."
(c) Multiple Simple Propositions	No example in his works
(d) Multiple Composite Propositions	
(d-i) with a conjunction	
(d-i-t) Composed of Terms	e.g. "Jupiter and Apollo are Gods." "Socrates walks, talks, and thinks."
(d-i-p) Composed of Propositions	e.g. "Apollo is a fortune-teller and Jupiter thunders."
(d-ii) without a conjunction	
(d-ii-t) Composed of Terms	e.g. "Plato, an Athenian philosopher, disputes."
(d-ii-p) Composed of Propositions	e.g. "Jupiter is the best; Juno is a queen; Minerva is a goddess of wisdom."

(a) A single simple proposition consists of two terms, usually a noun and a verb,<sup>159</sup> and signifies one fact. It may also contain what modern logicians call 'a quantifier' (i.e., 'every', 'some' or 'none') and 'a copula' 'is.' I should note that I here provisionally call the verb 'to be' 'a copula' according to the custom of modern logic. My discussion in the next chapter will show that we should be careful in using this expression for Boethius' logic.

(b) A single composite proposition consists of more than two terms and signifies one fact. It can be with or without a conjunction. (b-i) A single composite proposition with a conjunction is a conditional proposition that signifies one consequence or incompatibility. (b-ii) A

<sup>159</sup> See note 144 of this chapter.

single composite proposition without a conjunction is composed of a verb and more than two nouns that together signify one fact.

(c) A multiple simple proposition consists of two terms and signifies more than one fact. Boethius alludes to this type of proposition, but he does not provide any examples.<sup>160</sup> He may mean such an equivocal proposition as “Cato is a philosopher” (*Cato philosophus est*) or “The dog is an animal” (*canis est animal*). He claims that “Cato is a philosopher” is a multiple proposition if ‘Cato’ means two different persons, ‘Cato Major’ and ‘Cato Minor.’<sup>161</sup> He says that “The dog is an animal” is not a single proposition because ‘dog’ can signify the land animal and the sea animal.<sup>162</sup> “Cato is a philosopher” and “The dog is an animal” appear to be simple propositions, having two terms, i.e., ‘Cato’ and ‘a philosopher,’ and ‘dog’ and ‘an animal.’ It is dubious, however, whether he would dare to call this sort of equivocal proposition ‘simple.’ He says that a simple proposition consists of two terms, one of which is a subject and the other of which is predicated.<sup>163</sup> Do those equivocal sentences have one subject and one predicate? Boethius would say no. He says that there would be different subjects in “The tunic is white” (*tunica alba est*) if the ‘tunic’ were equivocal, meaning both ‘man’ and ‘horse.’<sup>164</sup> Thus “Cato is a philosopher” would have two subjects when ‘Cato’ means the two different persons. Similarly, “The dog is an animal” would have two subjects when ‘dog’ means the two different things. If we count ‘terms’ by subjects and predicates of propositions (def. 2), those equivocal propositions are classified into (d) multiple composite propositions rather than (c) multiple simple propositions. The lack of examples suggests that (c) is merely a theoretical possibility.

(d) A multiple composite proposition consists of more than two terms and signifies more than one fact. It can be with or without a conjunction. All multiple composite propositions are logically equivalent to propositions composed of two or more propositions, but Boethius does not approach multiple composite propositions in this way. He divides them into (d-i) those with conjunctions and (d-ii) those without conjunctions. Then, he divides each of these into those composed of terms, (d-i-t)

<sup>160</sup> *In PH*<sup>2</sup> 108.6–11.

<sup>161</sup> *In PH*<sup>2</sup> 106.25–107.6.

<sup>162</sup> For ‘dog’ as an equivocal term, see § 4, note 45.

<sup>163</sup> *In PH*<sup>2</sup> 115.11–13: “simplicem esse orationem enuntiativam quae duobus terminis continetur, quorum unum subiectum est, alterum praedicatur.” He makes a similar statement in *In PH*<sup>2</sup> 269.25–270.3.

<sup>164</sup> *In PH*<sup>2</sup> 181.19. Aristotle discusses this case in *PH*, ch. 8, 18a18–21.

and (d-ii-t), and those composed of propositions, (d-i-p) and (d-ii-p). This subdivision (d-i-t) reveals that his notion of the logical conjunction cannot be comprehended within the framework of propositional logic. Although he does not regard a conjunction combining just terms, words, or phrases as a logical conjunction—notice that (b-ii) “It is a rational animal perceptible of mind *and* discipline” is a single composite proposition *without* a conjunction—<sup>165</sup>he does not seem to maintain that all logical conjunctions combine propositions. He does *not* say that ‘and’ in the proposition “Jupiter and Apollo are gods” virtually combines two *propositions*, that is, “Jupiter is a god” and “Apollo is a god.” Characterizing this proposition as ‘composed of *terms* by a conjunction,’ he suggests that ‘and’ in this proposition combines *terms* rather than propositions. In this categorization, we see again that Boethius regards terms, not propositions, as the most basic elements of logic.<sup>166</sup>

#### 8. *Single by Nature vs. Single by Stipulation*

Before concluding this chapter, I would like to mention another pair of distinctions. Boethius introduces this pair in the second commentary to explain Aristotle’s text (i).<sup>167</sup> He says:

A single utterance (*oratio*) is taken in two ways, either when it is *one* by itself or when it is joined by some conjunction. Or surely we should say like this: Some utterances are *one* by nature, and others are *one* by stipulation (*positione*).<sup>168</sup>

Boethius says that a single utterance by stipulation is constructed of different utterances while a single utterance by nature is not.<sup>169</sup> As examples of single utterances by nature and by stipulation, he adduces “The sun rises” and “If it is a man, it is an animal.” He compares the two types of utterance with natural things and artifacts. Natural things such as pieces of wood or stones are one by themselves, constituting their own nature alone. So are single utterances by nature. Artifacts such as ships or

<sup>165</sup> I have discussed this issue in Chapter 4, §4, pp. 140–146.

<sup>166</sup> Recall that ‘terms’ are fundamental to the simple vs. composite distinction itself (§6).

<sup>167</sup> For this text of Aristotle, see note 38.

<sup>168</sup> In *PH*<sup>2</sup> 96.28–97.2: “Una oratio duplici tractatur modo: vel cum per se una est vel cum per aliquam coniunctionem coniungitur. Vel certe ita dicendum est: aliae orationes naturaliter unae sunt, aliae positione.”

<sup>169</sup> In *PH*<sup>2</sup> 97.2–6.

houses are artificially made into *one* from the material with nails or mortar. So are single utterances made by stipulation from other utterances.<sup>170</sup> Conjunctions can be compared to nails.<sup>171</sup> Therefore, I infer that single propositions by nature are (a) single simple propositions and also (b-ii) single composite propositions without a conjunction; single propositions by stipulation are (b-i) single composite propositions with conjunctions.

One may object to this interpretation based on Boethius' statement. In "It is Plato and Socrates" (*et Plato est et Socrates*), he says, the conjunction 'and' combines the two, and, therefore, the proposition *seems* (*videtur*) to be one by stipulation.<sup>172</sup> Does he admit that this example is a single proposition? I do not think so. Since the example sentence signifies two facts, having two nouns and one verb, it would be a composite *multiple* proposition. In addition, he says that "If it is a man, it is an animal" *is* a single utterance by stipulation.<sup>173</sup> Hence, I believe that he thinks "It is Plato and Socrates" has apparent unity, not real unity.<sup>174</sup> I observe that he sometimes uses 'seem' (*videri*) when something appears to be true but is not. We have encountered an instance of this in the previous chapter when he says, "[Besides nouns and verbs] there *seem* to be numerous parts of speech."<sup>175</sup>

### 9. Conclusion

In this chapter, I have discussed Boethius various distinctions of vocal speech (*oratio*). He uses the same word '*oratio*' for a phrase and a sentence. In making a distinction between them, he calls the former 'imperfect speech' and the latter 'perfect speech.' He holds that both of them can possess semantic unity because they signify one thing/fact (*res*).

Boethius proposes five species of sentence in accordance with our different speech-acts, but he chooses *only* the declarative sentence, which signifies *the truth-value*, as the subject of logic.<sup>176</sup> What matters for

<sup>170</sup> In *PH*<sup>2</sup> 97.1–14.

<sup>171</sup> Ammonius (In *PH* 12.27–28) claims that conjunctions, articles, prepositions and adverbs fulfill the function of bolts.

<sup>172</sup> In *PH*<sup>2</sup> 97.15–18.

<sup>173</sup> In *PH*<sup>2</sup> 97.4–6.

<sup>174</sup> Cf. Ammonius, In *PH* 75.12: "ἡ ὑπὸ τοῦ συνδέσμου φαινομένη ἔνωσις."

<sup>175</sup> In *PH*<sup>2</sup> 14.26 (see note 45 of Chapter 4). In *Isag*<sup>2</sup> 150.1 is another example of this.

<sup>176</sup> In *PH*<sup>2</sup> 96.5–7: "[Q]uocirca quoniam de ista, in qua veritas et falsitas invenitur, dialecticis philosophisque est quaerendum."

logicians is semantic truth and falsity.<sup>177</sup> That is why he defines cases of nouns and conjunctions in connection with truth-value, as we have observed in the previous chapter (§§ 3.3 and 4). From his logical point of view, it is possible to say that the difference between the declarative sentence and the other four species of sentence (*oratio*) is larger than the difference between a sentence and a phrase. A phrase affects the truth-value when combined with nouns or verbs whereas the four species of sentence do not do so unless they are treated as direct discourse—"He said to me, 'please pass me the salt.'"

Boethius makes numerous distinctions of speech in his discussions of the unity of propositions, and these distinctions reveal some traits of his logic. The single-multiple distinction shows that Boethius clearly distinguishes logical analysis from grammatical analysis. As is seen in the previous chapter, he takes the logician's criterion to be the signification of words; he uses this criterion in classifying words into nouns, verbs, conjunctions and so on. In identifying single propositions, he applies this criterion to speech as a whole, not to its parts.<sup>178</sup> The single *vs.* multiple distinction depends upon the signification of an utterance as a whole. Neither do the numbers of words contained in an utterance nor the presence of a conjunction matter for this distinction. A single proposition signifies one fact (*res*) while a multiple proposition signifies more than one fact. Thus Boethius finds the ultimate foundation of the unity of propositions in things (*res*), not in their grammatical constructions or in speakers' mental states.<sup>179</sup>

Boethius endorses the idea that a conditional proposition also has semantic unity. He says that a conjunction 'if' gives semantic unity to "If it day, it is light" by making the proposition signify one 'consequence,' i.e., a necessary causal connection. Together with his notion of the 'force of a proposition,' which I analyzed in the previous chapter (§ 4), his discussion

<sup>177</sup> For his different concepts of truth and falsity, see Chapter 1, § 4.3, pp. 36–37.

<sup>178</sup> Signification matters for Priscian's criterion for the unity of sentences in a different manner than Boethius'. For Priscian, "Ajax came to Troy; the same person fought bravely against Trojans" (*Aiāx uenit ad Troiam, idem fortiter pugnavit contra Troianos*) is one sentence (*una eademque oratio*) while "Ajax came to Troy; Ajax fought bravely against Trojans" (*Aiāx uenit ad Troiam, Ajax fortiter pugnavit contra Troianos*) is taken as two sentences. The reason is that the former sentence obviously talks about the same single person while the latter sentence can be understood to talk about two different persons called Ajax. See Priscian, *Inst.* III, 141.20–142.17 and Baratin's analysis of the text (1989: 423–424 or 1999: 185–186).

<sup>179</sup> Some medieval thinkers find the foundation for the unity of propositions in mental states. See Strub 2003 and Spruyt 2003.

of conditional propositions reveals the Stoics' influence. He suggests that we approach a linguistic expression ('proposition') as a whole. Therefore, I would agree with Kretzmann's claim that I mentioned in the beginning of Chapter 1 (§ 1): Boethius opened the way for '*dictism*,' the proposition oriented approach of logic—although as I have demonstrated there, Boethius does *not* do so with his technical use of 'signify' (*significare*) as Kretzmann claims he does.<sup>180</sup>

On the other hand, the simple *vs.* composite distinction and the further distinctions in accordance with the presence of a conjunction demonstrate that his logic is based on 'terms' rather than 'propositions,' and 'nouns' and 'verbs' rather than 'subjects' and 'predicates.' A simple proposition has two terms, and a 'term' means a part of speech, a noun or a verb. "Plato and Aristotle walk" means the same as "Plato walks and Aristotle walks." Boethius makes a distinction between these two propositions, calling the former "a composite proposition of terms" and the latter "a composite proposition of propositions." The distinction is not necessary from the viewpoint of '*dictism*' insofar as the two propositions mean the same. The fact that he keeps the distinction suggests that he would support '*terminism*,' which considers the meaning of a proposition from its parts, i.e., terms.

Thus the two streams of '*dictism*' and '*terminism*' coexist and supplement each other in Boethius' logic, contrary to Kretzmann's argument.<sup>181</sup>

As I discussed in the previous chapter, Boethius claims that grammarians should consider the 'form' (*figura*) of spoken words while philosophers should consider their signification. These criteria for logic and grammar also hold for the unity of propositions. Not the form of an utterance but its signification determines it to be single or multiple.

So does Boethius ignore the form of an utterance, i.e., the way the words of an utterance are arranged, as something irrelevant to semantic unity? It seems that he does not. He points out that if we speak each word of a single utterance separately with pauses, saying "two-footed ... land ... animal," the utterance is no longer one, but multiple.<sup>182</sup> Certainly the

<sup>180</sup> See Chapter 1, §§ 2–3.

<sup>181</sup> De Libera (1981) suggests that the two streams were coexisting among medieval logicians. The two streams may be compared with Frege's 'contextual principle' and 'compositional principle.' For the 'contextual principle,' see Frege, *The Foundations of Arithmetic*, in Beaney 90 [X]: "The meaning of a word must be asked for in the context of a proposition, not in isolation." For the 'compositional principle,' see Chapter 1, § 1, esp. p. 19 n. 13.

<sup>182</sup> In *PH*<sup>2</sup> 102.31–103.11.



form of an utterance or the continuity of pronunciation does not make an utterance *one*.<sup>183</sup> Nevertheless ‘two-footed,’ ‘land,’ and ‘animal,’ make up a single utterance only when they are spoken continuously. With pauses, the utterance signifies many things.<sup>184</sup> ‘two-footed’ could be a desk and ‘animal’ could range from aardvark to zebra. The continuity is required for those words together to signify one thing, in this case, a human being. The semantic unity of speech requires some form of an utterance as its accidental cause.

Boethius makes logical distinctions in such a way as to respect the forms (*figurae*) that utterances take. I think that the best evidence for this is his distinction between the ‘composite proposition of terms’ and the ‘composite proposition of propositions.’ As I said, the two groups of propositions do not differ as long as the signification of these propositions is considered. Nonetheless he keeps the distinction. Moreover, Boethius says ‘many utterance’ (*multa*) or ‘plural utterance’ (*plures*) only on a few occasions,<sup>185</sup> instead, using ‘multiple utterance.’ It is possible to take this as another piece of evidence for his defense of the forms of utterances. The expressions ‘many’ and ‘plural’ are normally combined with a plural noun, as in ‘many/plural utterances.’ If he did not use ‘multiple utterance,’ the linguistic items would lose formal unity, formal in the sense of the ‘form’ (*figura*) of spoken words. The preservation of utterance forms suggests again continuity between logic and grammar in his investigation.<sup>186</sup>

In this chapter, because of the complexities it would introduce, I tried to avoid considering various sentences that include the verb ‘to be’ (*esse*). I said (§ 6.1) that the ‘is’ in “Every man is an animal” (*Omnis homo est animal*) is not a ‘term,’ and therefore, this is a simple sentence. What about “A man is” (*est homo*)? Now this ‘is’ is a ‘term.’ Thus the verb ‘to be’ is sometimes a ‘term’ but sometimes not. As has been shown in this and the previous chapters, logicians make distinctions based upon signification, and therefore, distinctions about the verb ‘to be’ are made also by virtue of signification. In the next chapter, I will focus on the problems concerning the signification of the verb ‘to be.’

<sup>183</sup> In *PH*<sup>2</sup> 102.9–11; 102.22–24. In claiming this, Boethius literally follows Aristotle’s statement in *PH*, ch. 5, 17a13–15.

<sup>184</sup> In *PH*<sup>2</sup> 103.20–27; In *PH*<sup>2</sup> 104.2–7.

<sup>185</sup> ‘*Plures*’: twice in his Latin translation of Aristotle’s 17a17 (see note 39 of this chapter) and In *PH*<sup>2</sup> 108.7. ‘*Multa*’: In *PH*<sup>1</sup> 75.3 and In *PH*<sup>2</sup> 94.14. Ebbesen (2003: 272) notes that Boethius himself, unlike his successors, does not prefer the expression ‘*plures*.’

<sup>186</sup> See Chapter 4, § 5.



## CHAPTER SIX

### THE VERB 'TO BE'

#### 1. *Introduction*

In Chapter 4, I discussed nouns, verbs and conjunctions in general. Nouns and verbs are parts of speech while conjunctions are not. Boethius labels nouns and verbs equivocally: a verb, as a part of speech distinct from a noun, connotes time, but the verb spoken by itself is 'a noun' in a broad sense. The previous chapter (§ 6.1), however, revealed that the verb 'to be' demands special treatment: all other verbs are counted as 'terms' but the verb 'to be' in "S is P" is not. In classical logic, which is also called 'two-term logic,' the verb 'to be' is named a 'copula.' The copula 'is' is a connector of a predicate-term to a subject-term standing in between these terms. According to Lambert Marie de Rijk, it is Boethius who introduced this notion to the West.<sup>1</sup>

If Boethius holds the notion of 'is' as the copula, his logic presented in the preceding two chapters, namely the logic based upon the noun-verb distinction, would be potentially self-destructive. Boethius says that the predicate of a proposition always consists in a verb or an indefinite verb; the subject can be either a noun or a verb, or an indefinite noun or an indefinite verb.<sup>2</sup> But if 'is' in the sentence "S is P" is a copula standing between a subject and a predicate, we should take the verb 'is' as a special verb or a dummy verb that cannot become a predicate.<sup>3</sup> This line of thinking would raise questions about the status of 'to be' as a genuine verb

---

<sup>1</sup> De Rijk 2002.

<sup>2</sup> *In PH*<sup>2</sup> 99.28–100.25. "To run is to move" is given as an example of a sentence having verbs both in the subject and the predicate.

<sup>3</sup> Interestingly, the Port-Royal grammar, which is influenced by the logic of later scholastics, reaches the opposite conclusion: "Accordingly, we can say that the verb in itself ought to have no other use than to indicate the connection the mind makes between the two terms of a proposition. Only the verb 'to be,' however, called the substantive, retains this simplicity, and only in the third person present, 'is,' and on certain occasions." (*La logique ou l'art de penser* II, ch. 2 [Buroker tr., 79]). In short, they claim that only a copula is the genuine verb.

and the soundness of his logic, which relies on the noun-verb distinction. The copula ‘to be’ is more like a ‘conjunction’ than a ‘verb’ in his logical categories, for (i) it signifies nothing by itself as a connector and (ii) has the function of specifying the truth-conditions (*‘vis propositionis’*) by (iii) combining two linguistic items, that is, a subject-term and a predicate-term. “The human-being *is* an animal” is true, but the subject-term ‘the human-being’ and the predicate-term ‘an animal’ do not have a determinate truth-value until ‘is’ is added to connect these two terms. The fact that Boethius almost always regards ‘is’ (*est*) as a ‘verb’ may become the last resort for those who criticize his apparent conflation of logic with grammar. As I argued in the preceding two chapters, Boethius tried to make a clear distinction between the two disciplines. Nevertheless, they may argue, Boethius failed in this case; bound to the custom of grammar, he calls ‘a verb’ something that is more appropriately classified as a conjunction.

In this chapter, I will examine whether Boethius indeed holds the notion of the copula and how he categorizes the verb ‘to be’ in his logical analysis of noun, verb and conjunction. This examination also contributes to verify the third definition of ‘a term’ that I proposed in the previous chapter (§ 6.1). I will conduct this examination by arguing against De Rijk’s view that ‘Ammonian-Boethian semantics’ embraces the notion of the copula.

## 2. *De Rijk’s Claim*

In *Aristotle: Semantics and Ontology* (2002), Lambert Marie de Rijk vigorously argues that the copula does not exist in Aristotle’s semantics.<sup>4</sup> According to De Rijk, the expression ‘copula’ for the role of ‘is’ is not found until the end of the 11th century,<sup>5</sup> and Peter Abelard established

---

<sup>4</sup> A synopsis of his interpretation of Aristotle’s ‘is’ is presented in De Rijk 2002, 1: 30–37. Having a different interpretation from De Rijk’s, Barnes (1996) also claims the absence of a copula in Aristotle’s logic.

<sup>5</sup> Note that this date given by De Rijk is wrong. As an example of a seminal use of the expression, De Rijk (2002, 1: 237) cites what he claims as a work of Garlandus Compotista, a bishop of Agrigento (Sicily) who died February 25, 1100. He dates the work he cites (*Dialectica* III, 78.32–80.1) before 1088. His attribution of the work to Garlandus Compotista and his dating of this work are criticized by Iwakuma 1992: § 3, 47–54. Iwakuma says that the work was written by another Garlandus, i.e., Garlandus of Besançon (Garland Younger) around 1100–1120/30.

the notion of the copula as an essential constituent of a proposition.<sup>6</sup> Nevertheless, De Rijk claims that the origin of this notion is in 'Ammonian-Boethian semantics'.<sup>7</sup> He says that the notion is first found in Ammonius' commentary on *Peri hermeneias* and then in Boethius' second commentary on this work because the former influenced the latter.<sup>8</sup> Almost all Boethian scholars now rebuff Pierre Courcelle's claim that Boethius had studied with Ammonius in Alexandria.<sup>9</sup> Nowhere in Boethius' works do we find Ammonius' name.

De Rijk thinks that the denial of Courcelle's thesis does not undermine Ammonius' having been Boethius' main source. If Boethius had Greek copies of Aristotle's works with many marginal notes cited from *scholia* (as James Shiel has proposed),<sup>10</sup> he could have read many parts of Ammonius' commentaries. De Rijk thereby suggests that Boethius is responsible for the misinterpretation of Aristotle and for a radical change in the history of semantics, bringing the notion of the copula into the Latin tradition of logic.

In fact, Aristotle himself rarely uses the formula "S is P" in his works. Aristotle frequently uses the following formulae: "τὸ Φ ὑπάρχει τῷ Σ" (P belongs to S, or P holds for S) and "τὸ Φ κατηγορεῖται κατὰ τοῦ Σ" (P is predicated of S).<sup>11</sup> Despite this fact, Aristotelian logic or even the logic of Aristotle himself has been often presented as 'two-term logic,' which

---

<sup>6</sup> For evidence, De Rijk (2002, 1: 237) cites the following text of Abelard: "Sunt autem membra ex quibus coniunctae sunt, praedicatum ac subiectum atque ipsorum copula, secundum hoc scilicet quod verbum a praedicato seorsum per se accipimus, veluti in ea propositione qua dicitur: 'homo est animal', 'animal' praedicatur, 'homo' vero subicitur, verbum vero interpositum praedicatum subiecto copulat; et in his quidem tribus categoricae propositionis sensus perficitur" (*Dialectica* II, 161.9–14). For Abelard's approach to 'is' (*est*), see Jacobi 1986. While many contemporary philosophers (for instance, Quine 1960: 170) hold that a copula is tenseless, a 'copula' for Abelard is a verb that connotes time.

<sup>7</sup> De Rijk 2002, 1: 3.

<sup>8</sup> De Rijk 2002, 1: 235 sqq.

<sup>9</sup> Courcelle 1935 and 1948 = 1969, ch. 6.

<sup>10</sup> Shiel 1990. Shiel himself is negative on Boethius' use of Ammonius (see note 132 of this chapter). De Rijk seems to have supported Shiel's thesis since his early work (De Rijk 1962: 30–31). As I have mentioned on p. 27 (Chapter 1, note 44), many scholars have criticized Shiel's arguments since he published the first version of this paper in 1958. If Shiel's thesis is difficult to substantiate, De Rijk would face a philological difficulty in explaining how Ammonius' work could be Boethius' main source.

<sup>11</sup> Cf. Barnes 1996: 184: "These formulae are artificial in the sense that no Greek who wanted to say that pleasure was good would normally have expressed himself by way of any of them."

is a logical system of subject, predicate and copula.<sup>12</sup> In two-term logic, every primary sentence should be written in the canonical form “S is P,” in which two terms, a subject and a predicate, are attached to each other by a copula ‘is.’ Thus ‘two-term logic’ immediately falls into ‘two-name logic’ in which both a subject-term and a predicate-term are always names (nouns) and connected by a copula.<sup>13</sup> Some sentences, which are far from the canonical form on their surface, are also reduced into sentences in the canonical form. For instance, “Socrates runs” is reduced to “Socrates (S) is running (P),” and similarly “Socrates is/exists” is reduced to “Socrates (S) is a being (P).” Such reduction may find support in Aristotle’s statement in *Peri hermeneias*: “For, there is no difference between saying that a man walks and saying that a man is walking.”<sup>14</sup> To be exact, however, Aristotle suggests the logical equivalence of the two sentences, “A man walks” and “A man is walking,”<sup>15</sup> not any reduction to the sentence in the form “S is P,” “A man is walking.”

In proposing that the origin of the copula is in Ammonian-Boethian semantics, De Rijk points out differences in Boethius’ claims about ‘is’ (*est*) in his logical works, between his two monographs on categorical syllogisms and his second commentary on *Peri hermeneias*.<sup>16</sup> In *On Categorical Syllogism* and *Introduction to Categorical Syllogisms*, Boethius claims that (a) ‘is’ indicates the sentence’s quality, whether it is affirmative or negative;<sup>17</sup> and (b) ‘is’ is ‘accommodated’ to the proposition to make up an affirmation.<sup>18</sup> De Rijk finds these expressions akin to his own interpretation of Aristotle’s original view of ‘is’ and ‘is not’: the verbs ‘is’ and ‘is not’ are assertoric operators to be added to an assertible to make up

<sup>12</sup> For example, Kneale 1962: 63.

<sup>13</sup> P.T. Geach criticizes ‘two-name logic’ severely in his lecture “History of the Corruption of Logic” in 1968 (compiled in Geach 1972: 44–61).

<sup>14</sup> *PH*, ch. 12, 21b9–10: “οὐδὲν γὰρ διαφέρει εἰπεῖν ἄνθρωπον βαδίζειν ἢ ἄνθρωπον βαδίζοντα εἶναι.” / 27.3–4: “nihil enim differt dicere ‘hominem ambulare’ vel ‘hominem ambulans esse.’” Aristotle makes similar statements in *Met.* V, ch. 7, 1017a27–30 and in *PrA* I, ch. 46, 51b13–16. He seems to support the reduction the other way around, namely from “A man is walking” to “A man walks” in *Phys.* I, ch. 2, 185b29.

<sup>15</sup> Cf. Barnes 2007: 111: “There is no reason to question the equivalence which Aristotle and his followers proclaim—although it is perhaps worth insisting that the claim does not concern the English continuous present (for which, of course, it would be quite false) but rather a certain Greek paraphrastic idiom. So (the Greek for) ‘sang’ means the same as (the Greek for) ‘was singing’; and in general ‘VERB’ means the same as ‘is VERBing.’”

<sup>16</sup> De Rijk 2002, 1: 236–237.

<sup>17</sup> *De cat. syll.* 16.9–10 = 798a; *Introd. cat. syll.* 25.5–7 = 769a.

<sup>18</sup> *Introd. cat. syll.* 25.7–8 = 769a (see the translation and original, p. 193).

affirmative and negative statements. "Socrates is white" is understood as 'Is: [Socrates-being-white]' or 'Is: [that Socrates-is-white]'. The verb 'is' is used emphatically as an assertoric operator attached to a participial phrase 'Socrates-being-white' or a that-clause 'that Socrates is white' as an assertible.<sup>19</sup> On the other hand, in his commentary on Aristotle's chapter 3 (16b19–25), Boethius proposes the Ammonian view that 'is' (*est*) is connecting (*copulans*) a predicate to a subject. Noting the difference between the two discussions, De Rijk suggests that Boethius radically changed his view of 'is' (*est*) after reading Ammonius' commentary.<sup>20</sup>

There is, however, some reason to doubt De Rijk's interpretation. In his second commentary on chapter 10 (19b19–31), Boethius proposes the view parallel to that found in his own monographs on logic, saying that 'is' indicates (*demonstrat*) the quality of a proposition.<sup>21</sup> It would be then difficult to claim that Boethius switched from one view to another under the influence of Ammonius. In addition, the following questions come to mind. Are Boethius' statements in his monographs and commentaries on chapter 3 and chapter 10 incompatible with each other?<sup>22</sup> Is Ammonius' explanation of *Peri hermeneias*, chapter 3 virtually the same as Boethius'?

In this chapter, I will examine Boethius' thought about the functions of the verb 'to be' (*esse*) considering answers to these questions. For this purpose, I will look at and compare relevant texts: Boethius' monographs on logic, his two commentaries on *Peri hermeneias*, and Ammonius' commentary on the same work. It will turn out that Boethius has a consistent view of the verb 'to be' and that his view is remarkably different from Ammonius' in such a way that we cannot find the notion of the copula in his works.

### 3. 'Is' in Boethius' Monographs on Logic

Among the relevant texts, I will first analyze Boethius' statements of 'is' in his monographs on logic. It is possible that both of these monographs were written before the second commentary on *Peri hermeneias*.<sup>23</sup>

<sup>19</sup> De Rijk 2002, 1: 36.

<sup>20</sup> De Rijk (2003a and 2003b) also sees Ammonius' influence on Boethius' treatment of the indefinite noun. I criticized this interpretation in Chapter 4, note 97, p. 135.

<sup>21</sup> In *PH*<sup>2</sup> 265.26–27; In *PH*<sup>2</sup> 270.2–3.

<sup>22</sup> De Rijk would say so: "It is noticeable that in his earlier logical monographs Boethius hardly seems to accept the interpretation of 16b22–25 he argues for in the two *Perihermeneias* commentaries" (2002, 1: 219, n. 109).

<sup>23</sup> See Chart 2, p. xix. In his earlier article (1964), from which Chart 2 is made, De Rijk

In *On Categorical Syllogism*, Boethius says:

The primary terms are the subject and the predicate. For, 'is' and 'is not' are not terms but rather they are significative (*designativa*) of affirmation or negation; and 'every', 'none' and 'some' are not terms but rather significative (*designativa*) of determinations (*definitiones*), whether it is stated particularly or universally.<sup>24</sup>

With the example "every man is an animal," he determines what is a 'term' and what is not. He presents his 'second definition' (def. 2) of a 'term': 'terms' are the subject and the predicate.<sup>25</sup> On the other hand, 'is' and 'is not' are not 'terms,' but words that indicate whether the proposition is an affirmation or a negation. Similarly, 'every', 'none' and 'some' are not 'terms,' but words that indicate the determination in quantity, namely whether the proposition is universal or particular.

In *Introduction to Categorical Syllogisms*, Boethius begins with an analogous claim:

(i) We call these parts of simple enunciations, i.e., the predicate and the subject, 'terms.' We call those in which the final analysis (*resolutio*) ends 'terms.' Accordingly, in singular or indefinite propositions, we always find two terms and a verb which determines the quality of the proposition—in the proposition by which we say "Socrates is wise," it is evident that 'Socrates' and 'wise' are terms.<sup>26</sup>

Here, as in *On Categorical Syllogism*, Boethius claims that the predicate and the subject are 'terms.' He claims that we always find two terms in singular and indefinite propositions. Singular propositions are those about particular persons or things, like "Socrates runs." Indefinite propositions

---

suggests that *Introduction to Categorical Syllogisms* is probably written after the second commentary on *Peri hermeneias*. De Rijk may have changed his view over the years, but he may say his recent interpretation would still make sense even if his previous suggestion on the date of Boethius' works is correct. De Rijk may say that Boethius repeats his earlier view of the verb 'to be' in the later work because the *Introduction* is the second redaction of *On Categorical Syllogism* (see De Rijk 1964: 160–161).

<sup>24</sup> *De cat. syll.* 16.8–12 = 798a: "Nam primi termini sunt subiectum et praedicatum; 'est' enim et 'non est' non magis termini quam affirmationis uel negationis designatiua sunt et 'omnis' uel 'nullus' uel 'aliquis' non magis termini quam definitionum, utrum particulariter an uniuersaliter dictum sit, designatiua sunt."

<sup>25</sup> For his different definitions of a 'term,' see Chapter 5, § 6.1.

<sup>26</sup> *Introd. cat. syll.* 24.18–25.5 = 768d–769a: "Has uero simplicium enuntiationum partes, id est praedicatum atque subiectum terminos appellamus. Termini uero dicuntur, quod in eos fit postrema resolutio. Itaque in singularibus uel indefinitis propositionibus duos semper terminos inuenimus et uerbum, quod propositionis determinet qualitatem, ut in propositione, qua dicimus: 'Socrates sapiens est', 'Socrates' quidem ac 'sapiens' terminos esse manifestum est."



are those that lack any determination in quantity and can be taken either universally or particularly, for instance, "Man runs" (*homo currit*). This indefinite proposition can be taken either as a universal proposition "All the members of the human race run"; or as a particular proposition "A particular man (*e.g.*, Aristotle) runs." In a singular proposition "Socrates is wise," we find two terms, that is, the subject 'Socrates' and the predicate 'wise.' Taking a step beyond his statement in *On Categorical Syllogism* that 'is' and 'is not' signify an affirmation or a negation, he says that the verb 'is' *determines* the quality of a proposition, making a proposition an affirmation.<sup>27</sup>

The very part of the text to which De Rijk refers, follows this:

(ii) The verb 'is' is not a term but rather a signification (*designatio*) of the quality [of a proposition]. It signifies how the proposition is, [*i.e.*,] either negative or affirmative. On the other hand, an affirmation is made when the verb 'is' alone is adapted to a proposition; but if 'not,' which is a negative adverb, is added [to the proposition "Socrates is wise"], it would then become, "Socrates is not wise." When the quality is changed in this way, a negation would come to be from an affirmation. Hence, 'is' and 'is not' are not terms, but, as has been said, a signification (*significatio*) of the quality. All the same [reasoning] applies to the indefinite proposition.<sup>28</sup>

Boethius says that 'is' and 'is not' are not terms but words that determine and signify the quality of a proposition, namely whether the proposition is an affirmation ("Socrates *is* wise") or a negation ("Socrates *is not* wise").<sup>29</sup>

But this is not the end of Boethius' explanation of 'is.' He introduces examples of the proposition that have 'is' differently, *i.e.*, the 'is' that we would call 'existential.' He explains how this type of 'is' shares the same feature with the other type of 'is' that he has explained:

(iii) If an enunciation consists of the two parts of speech, as "Socrates *is*" (*Socrates est*) or "Day *is*" (*dies est*), the verb 'is' (*est*) performs a two-fold

<sup>27</sup> The 'verb' in text (i) is nothing other than 'is' (or 'is not').

<sup>28</sup> *Introd. cat. syll.* 25.5–11 = 769a: "Est' uero uerbum non est terminus, sed designatio qualitatis, et qualis propositio sit, negatiua an affirmatiua, significat. Et nunc quidem solo 'est' uerbo propositioni accommodato facta est affirmatio. At si 'non', quod negatiuum aduerbium est, esset adiunctum, ita diceretur 'Socrates sapiens non est' atque hoc modo mutata qualitate fieret ex affirmatione negatio. 'Est' igitur et 'non est' non sunt termini, sed, ut dictum est, significatio qualitatis. Eadem omnia etiam in indefinita propositione conueniunt."

<sup>29</sup> The expression 'qualities of a proposition' may trace back to Alexander of Aphrodisias. Alexander (*In PrA* 11.31–32) says that the affirmative or negative is the first and common 'quality' (ποιότης) of the premises (πρότασεις).

force, namely predication (because the verb ‘is’ is predicated of Socrates or of day) and signification of the quality (for indeed, the same ‘is’ standing alone makes up an affirmation; with a negative adverb, a negation).<sup>30</sup>

As we saw in Chapter 4 (§ 4), the ‘force’ (*vis*) in this text means ‘a function.’ Boethius claims that the existential ‘is’ has two functions. First, it has the function of a predicate. In the propositions “Socrates is” and “Day is,” ‘is’ is predicated of ‘Socrates’ and ‘day.’ Second, like another type, this type of ‘is’ has the function of signifying the quality of a proposition. In “Socrates is” and “Socrates is not,” ‘is’ and ‘is not’ make the propositions an affirmation and a negation.

Throughout the whole discussion in the *Introduction*, Boethius explains the functions of the two different types of ‘is.’ The first type is in the proposition that has two ‘terms’ (a subject and a predicate). This ‘is’ is not a ‘term’ but indicates the quality of a proposition, namely whether the proposition is an affirmation or a negation. Making up a proposition with a subject, the second type of ‘is’ not only indicates the quality of a proposition but also functions as a predicate of a proposition.

#### 4. ‘Is’ in Boethius’ Exposition of Chapter 10 (“Tertium Adiacens”)

The following statements in Aristotle’s chapter 10 (19b10–22) may appear to support the notion of the copula. In glossing this text, Boethius presents a view against it, and some of his explanations are parallel to the ones he presented in his monographs on logic.

“Ὅταν δὲ τὸ ἔστι τρίτον προσκατηγορηθῇ, διχῶς λέγονται αἱ ἀντιθέσεις. λέγω δὲ οἷον ἔστι δίκαιος ἄνθρωπος, τὸ ἔστι τρίτον φημὶ συγκεῖσθαι ὄνομα ἢ ῥῆμα ἐν τῇ καταφάσει. . . . τὸ γὰρ ἔστιν ἐνταῦθα καὶ τὸ οὐκ ἔστιν τῷ δικαίῳ καὶ τῷ οὐ δικαίῳ πρόσκειται.

[Aristotle, *Peri hermeneias*, chapter 10, 19b19–22, b29–30]

But when ‘is’ is predicated additionally as a third thing, there are two ways of expressing oppositions. I mean, for example, “a man is just”; here I say that ‘is’ is a third component—whether a name or a verb—in the affirmation. . . . ‘Is’ and ‘is not’ are here added to ‘just’ and to ‘not-just.’

[Ackrill’s translation]

<sup>30</sup> *Introd. cat. syll.* 25.12–17 = 769a–b: “Quod si duabus enuntiatio orationis partibus constet, ut si quis dicat ‘Socrates est’ uel ‘Dies est’, uerbum ‘est’ ui gemina fungitur scilicet praedicatione (‘est’ enim uerbum de Socrato uel de die praedicatur) et significatione qualitatis (idem namque ‘est’ solum positum affirmationem, cum negatio uero aduerbio perficit negationem).”

Quando autem est tertium adiacens praedicatur, dupliciter dicuntur oppositiones. Dico autem ut 'est iustus homo', 'est' tertium dico adiacere nomen vel verbum in adfirmatione. ... dico autem quoniam 'est' aut 'iusto' adiacebit aut 'non iusto'.  
[Boethius' Latin translation]

Before this passage, Aristotle claims that there can be no affirmation or negation without a verb, giving examples "a man is" and "a man is not." In these examples, the verb 'is' and 'is not,' added immediately after the subject, make an affirmation and a negation. And there is only one way to express oppositions: "a man is" is opposite to "a man is not."

Now, Aristotle moves into the cases where 'is' is "predicated additionally as a third thing." He gives "a man is just" as its example and calls 'is' in the example 'a third component' (τρίτον/*triton*). This expression *appears* to imply the notion of the copula: the copula 'is' itself is neither the subject nor the predicate; it is added as a third component in a sentence to connect the two other components, that is, the subject and the predicate. Boethius translates Aristotle's expressions 'being predicated additionally as a third thing' (τρίτον προσκατηγορεῖσθαι/*triton proskategoreisthai*) and "being a third component" (τρίτον συγκεῖσθαι/*triton sunkeisthai*) as '*tertium adiacens praedicari*' and '*tertium adiacere*.'<sup>31</sup> Following his Latin translation, this type of 'is,' which lies between the subject-term and the predicate-term, is called '*tertium adiacens*' in the Middle Ages (its literal English translation is 'a third item *adjoining*').<sup>32</sup>

In explaining this passage, however, Boethius presents a notion of 'is' which is quite different from the copulative 'to be.' He explicitly claims that 'is' as a *tertium adiacens* is on the side of the predicate:

(1) For instance, in our speaking "a man is just," 'a man' is the subject and both 'just' and 'is' are predicated. Therefore, in this [example], two [words] are predicated while one is the subject.<sup>33</sup>

In "A man is just," one word 'a man' (*homo*) is the subject and the two words 'just' (*iustus*) and 'is' (*est*) are predicated. Of the two predicated words, Boethius says, 'just' comes first and 'is' comes second.<sup>34</sup> In other

<sup>31</sup> Note that he also translates 'πρόκειται' (19b25) as '*adiacebit*.' Thus Boethius translates three different verbs in Greek by one verb '*adiacere*.'

<sup>32</sup> 'Is' placed immediately after the subject is called '*secundum adiacens*' later in the Middle Ages. For instance, Abelard, *In PH* 362.14–34. Later scholastics also use the expression '*primum adiacens*.' For the history and different interpretations of '*primum/secundum/tertium adiacens*,' see Nuchelmans 1992.

<sup>33</sup> *In PH*<sup>2</sup> 264.21–23: "[U]t in eo quod dicimus homo iustus est homo subiectum est et iustus et 'est' utraque praedicantur, ergo in hoc duo sunt praedicata, unum subiectum."

<sup>34</sup> *In PH*<sup>2</sup> 264.26–27; 265.3–6.

words, we posit the verb ‘is’ next to (*ponere ad*) ‘just’ in “a man is just.”<sup>35</sup> The verb ‘is’ is joined to (*iungitur ad*) ‘just’ or adjoins (*adiacet*) ‘just.’<sup>36</sup> In the text cited above (1), he comes close to saying that the sentence has one subject and two predicates,<sup>37</sup> but subsequently, as we will see in the next text (2), he refrains from calling ‘is’ in the sentence ‘a predicate.’ This is perhaps because, among the sentences that have two predicated words, he needs to distinguish between (a) the sentences that contain ‘is’ as a *tertium adiacens* and (b) those that do not. There is a significant semantic difference between them. Compare “Socrates is walking” (an example of (a)) with “Socrates is and walks” (an example of (b)). “Socrates is walking” signifies one fact (*res*) that Socrates is walking while “Socrates is and walks” signifies two facts (*res*) that Socrates is alive and that he is walking. According to Boethius’ classification (as we saw in Chapter 5, § 5), the former is ‘a single sentence’ (*una oratio*) while the latter is ‘a multiple sentence’ (*mutiplex oratio*).

(2) I call ‘just’ in the proposition “a man is just” (*homo iustus est*) ‘a predicate’ (*praedicatum*). This [‘just’] is predicated of a man, while ‘is’ (*est*) is not predicated [of a man], but is predicated as a third item added (*tertium adiacens*), namely in the second place and adjoining (*adiacens*) ‘just.’ The third item (*tertium*) is predicated in the whole proposition, not as some part of the whole proposition but rather as an indication of the quality. For, our speaking ‘is’ does not produce the whole proposition, but it indicates (*demonstrat*) how it is (*qualis est*), namely that it is affirmative. Therefore, he did not say that the third item is predicated simply (*tantum*), but that the third item [‘is’] is additionally predicated. For, the third thing posited [‘is’] is not predicated alone, but is predicated additionally [to the primary predicate] in the second place and, so to speak, accidentally.<sup>38</sup>

<sup>35</sup> *In PH*<sup>1</sup> 130.23–25.

<sup>36</sup> *In PH*<sup>1</sup> 131.12; *In PH*<sup>1</sup> 131.5. He says similarly, “ad iustum verbum ‘est’ adiunximus” in *In PH*<sup>1</sup> 131.8 (single quotation marks added).

<sup>37</sup> He states this in the first commentary (*In PH*<sup>1</sup> 130.5–6): “Unum subiectum et duo praedicata quemadmodum possint esse in propositione commemorat.”

<sup>38</sup> *In PH*<sup>2</sup> 265.22–266.6: “Praedicatum autem dico in ea propositione quae ponit homo iustus est iustus. Hoc enim praedicatum de homine est, ‘est’ autem non praedicatur, sed tertium adiacens praedicatur id est secundo loco et adiacens iusto, tertium vero in tota propositione praedicatur, non quasi quaedam pars totius propositionis, sed potius demonstratio qualitatis. Non enim hoc quod dicimus ‘est’ constituit propositionem totam, sed qualis sit id est quoniam est affirmativa demonstrat atque ideo non dixit tertium praedicatur tantum, sed tertium adiacens praedicatur. Non enim positum tertium praedicatur solum, sed adiacens tertium secundo loco et quodammodo [alternative MSS: quemadmodum] accidenter praedicatur.”

Instead of saying that 'is' is 'a (second) predicate' or 'predicated,' Boethius says that the predicate of the sentence is 'a man' and that 'is' is predicated *additionally* and *accidentally*. The expression 'predicated additionally' (*adiacens praedicatur*) is taken from Aristotle's word 'προσκατηγοεῖσθαι' (19b19) and means 'predicated with some other word,'<sup>39</sup> in the example, with 'just.' To explain how '(simply) predicated' and 'additionally predicated' differ, he furnishes an interesting example where 'is' can be understood in two ways. The example "*Socrates philosophus est*" is understood either as "Socrates, a philosopher, is" or as "Socrates is a philosopher." The former reading is the same as saying "Socrates, a philosopher, lives (*vivit*)." "Socrates, a philosopher, is" has two subjects 'Socrates' 'a philosopher' and one predicate 'is.' This 'is' is simply predicated and equivalent to the predicate 'lives.'<sup>40</sup> The latter "Socrates is a philosopher" means the same as "Socrates philosophizes (*philosophari*)." This reading has one subject 'Socrates,' one predicate 'a philosopher' and 'is,' which is predicated additionally to 'a philosopher.'

In text (2), Boethius also claims that 'is' as a *tertium adiacens* is predicated (i) not as some part of the proposition but (ii) as an indication of the quality of the proposition. The latter half of this claim [(ii)] is parallel to his statements in his monographs on logic,<sup>41</sup> but what does he mean by the first half [(i)]: this 'is' is not a part of the proposition? The clue for understanding is in the statements he made after presenting the two ways to express oppositions for a sentence with 'is' as a *tertium adiacens*—e.g., "a man is not just" and "a man is non-just" are opposite to "a man is just."

(3) For, the above ['is'] is not a term in the proposition, either. Therefore, if one wishes to resolve the proposition into its terms, one does not resolve it into 'is' (*est*), but into 'man' (*homo*) and 'just' (*iustus*). There will be two terms: the subject is 'man' while the predicate is 'just'; 'is' is what is predicated as a third thing added (*tertium adiacens*) not in the term, but rather in the quality of the proposition (as is said), to be taken more rightly.<sup>42</sup>

<sup>39</sup> This is an accurate interpretation of Aristotle's Greek word. By the word, Aristotle indicates that 'is' has a predicative function (Barnes 1996: 190).

<sup>40</sup> Cf. Ammonius, using the example "Σωκράτης ὁ φιλόσοφος ἔστι," says that the ἔστι is predicated alone (μόνον), not predicated additionally (*In PH* 165.17–21).

<sup>41</sup> See § 3 of this chapter.

<sup>42</sup> *In PH*<sup>2</sup> 269.25–270.3: "Neque enim superius terminus in propositione est. Atque ideo si quis resolvere propositionem velit in suos terminos, ille non resolvit in 'est,'

Boethius makes statements analogous to the first half of claim (i) which he has made in the preceding text (2): 'is' shows the quality of the proposition, namely whether the proposition is an affirmation or a negation. He adds now that 'is' is not 'a term' in the proposition. Therefore, he presumably means that 'is' is not a term by the latter half of claim (ii): 'is' is not a part of the proposition.<sup>43</sup>

Building on these explanations, Boethius attempts to spell out why Aristotle says that 'is' as *tertium adiacens* is either a noun or a verb.

(4) He [Aristotle] calls 'is' (*est*) "a noun or a verb" for the following reason. He said that 'is' is the third thing added as a noun, so that he could teach that the first two things are 'a man' and 'just'; but he says "a noun or a verb" because verbs are also nouns. He has said this before, stating that verbs spoken by themselves are nouns.<sup>44</sup>

Boethius argues that Aristotle first calls 'is' 'a noun' so that we can easily reach the truth that 'is' is the third word to be added to the two other nouns. If 'is' were first called 'a verb,' it would be more difficult to see why it is called the third thing, not the first thing (because it would be counted before the two nouns as a different type of word). Aristotle is consistent in calling the verb 'is' 'a noun' because he said that verbs spoken by themselves are nouns broadly categorized.<sup>45</sup> Aristotle then calls it 'a verb.' Boethius here does not explain why, presumably because to him 'is' is obviously a verb, but we'll look at his reasons later (§ 6).<sup>46</sup>

To summarize, Boethius' discussion of 'is' as a *tertium adiacens* is homogenous to his statements in his monographs on logic. Boethius presents two types of 'is.' The first type of 'is' is predicated simply and

---

sed in id quod est homo et iustus. Et erunt duo termini: subiectum quidem homo, praedicatus vero iustus, est autem quod adiacens praedicatur et tertium adiacens non in termino, sed in qualitate potius propositionis (ut dictum est) iustius accipietur."

<sup>43</sup> We can find these two expressions at the same time in Alexander's commentary on *Prior Analytics*. Alexander (*In PrA* 16.7–8) says that 'to be' and 'not to be' are neither parts (*μέρη*) of a premise (*προτάσις*) nor terms.

<sup>44</sup> *In PH*<sup>2</sup> 270.3–8: "Nomen autem vel verbum ait est propter hanc causam. Tertium enim nomen adiacere 'est' dixit, ut doceret prima duo esse hominem scilicet et iustum, idcirco autem ait nomen vel verbum, quoniam verba quoque nomina sunt. Hoc autem prius dixit dicens: ipsa quidem per se dicta verba nomina sunt."

<sup>45</sup> See Chapter 4, § 3.4. The textual basis of this claim is in Aristotle, *PH*, ch. 3, 16b19–20. We will look at the said text soon later in § 5.1.

<sup>46</sup> Ammonius (*In PH* 166.2–5) upholds this interpretation. Barnes (1996: 188–189) says that Aristotle means 'noun, or rather verb.'

counted as a term.<sup>47</sup> The examples are found in “A man is” and “Socrates, a philosopher, is.” The second type of ‘is’ is predicated additionally and accidentally, and is not counted as a term. The examples are found in “A man is just” and “Socrates is a philosopher.” Both types of ‘is’ are placed on the side of the predicate or in the predicative part. In addition, he is inclined to treat ‘is’ like other nouns and verbs rather than giving it a special logical status.

### 5. Approaches to ‘Is’ (est) in *Peri hermeneias*, Chapter 3

#### 5.1. Aristotle’s Text and Boethius’ Translation

De Rijk claims that Ammonius and Boethius propose the notion of the copula in their commentaries on Aristotle’s chapter 3, 16b19–25. Below I will quote this problematic text, John Ackrill’s English translation and Boethius’ Latin translation. For the sake of further discussion, I have inserted numbers in the text.<sup>48</sup>

(1) αὐτὰ μὲν οὖν καθ’ αὐτὰ λεγόμενα τὰ ῥήματα ὀνόματά ἐστι καὶ σημαίνει τι,—ἴσθησι γὰρ ὁ λέγων τὴν διάνοιαν, καὶ ὁ ακούσας ἡρέμισεν,—(2) ἀλλ’ εἰ ἔστιν ἢ μὴ οὕτω σημαίνει’ / (3) οὐ [Ackrill *et al.*: οὐδὲ] γὰρ τὸ εἶναι ἢ μὴ εἶναι σημειὸν ἐστι τοῦ πράγματος, (4) οὐδ’ ἐὰν τὸ ὄν εἴπῃς ψιλόν. (5) αὐτὸ μὲν γὰρ οὐδέν ἐστιν, (6) προσσημαίνει δὲ σύνθεσιν τινα, ἣν ἄνευ τῶν συγκεμένων οὐκ ἔστι νοῆσαι.

[Aristotle, *Peri hermeneias*, ch. 3, 16b19–25]

(1) When uttered just by itself a verb is a name and signifies something—the speaker arrests his thought and the hearer pauses—(2) but it does not yet signify whether it is or not. (3) For not even ‘to be’ or ‘not to be’ is a sign of the actual thing ((4) nor if you say simply ‘that which is’) (5) for by itself it is nothing. (6) but it additionally signifies some combination, which cannot be thought of without the components.

[Ackrill’s translation]

<sup>47</sup> The fact is obvious because he calls those propositions that he explained before treating the *tertium adiacens*, “those which consist of two terms” (*In PH*<sup>2</sup> 264.17). His position is opposite to Alexander’s (*In PrA* 15.15–22), who claims that this first type of ‘is’ looks like a term but in fact is not.

<sup>48</sup> There are three recent articles which discuss this text and its interpretations (Husson 2009a, Rosier-Catach 2009 and Magee 2010a). Among them, Magee’s makes insightful remarks about the relationship between Boethius and his Greek sources. Rosier-Catach’s gives a helpful overview of the reception of this text in the Latin tradition. I, however, sometimes disagree with them in my following analysis of Boethius’ text.



(1) Ipsa quidem secundum se dicta verba nomina sunt et significant aliquid—constituit enim qui dicit intellectum, et qui audit quiescit—(2) sed si est vel non est nondum significat. (3) Neque enim esse signum est rei vel non esse, (4) nec si hoc ipsum ‘est’ purum dixeris. (5) Ipsum quidem nihil est, (6) consignificat autem quandam compositionem quam sine composites non est intellegere.<sup>49</sup> [Boethius’ Latin translation]

Before looking at Boethius’ commentaries, I will point out major interpretative problems in Aristotle’s text and differences between the Greek original and Boethius’ Latin translation.

Most commentators share a similar understanding of the first sentence (1)–(2) of this text. Aristotle claims that a verb uttered by itself is ‘a name (noun)’ in the broad sense because it signifies something;<sup>50</sup> it is not yet a declarative sentence; neither is it an affirmation that says ‘it is,’ nor is it a negation that says ‘it is not.’

The chief interpretative difficulty of this text lies in the relationship between (2) and (3)–(6). (5) and (6) seem to establish the reasons for (3)–(4) because (5) is introduced with the conjunction ‘for’ (γάρ). (3)–(6) also seem to establish the reasons for (2). The subject of sentence (3) can be either ‘a verb uttered by itself’ or ‘to be or not to be,’ and different readings in the manuscripts, ‘οὐδέ’ or ‘οὐ,’ make the issue more vexed. Among contemporary commentators, John Ackrill and Elio Montanari choose ‘οὐδέ’ and take ‘to be or not to be’ as the subject.<sup>51</sup> On the contrary, Hermann Weidemann chooses ‘οὐ’ and takes ‘a verb uttered by itself’ as the subject.<sup>52</sup> Among ancient Greek commentators, as we will see later (§ 5.3), Ammonius chooses ‘οὐδέ’ and selects ‘to be or not to be’ as the subject. He says that Porphyry, who employs ‘οὐ,’ takes ‘a verb uttered by itself’ as the subject. Thus, generally, as the subject of sentence (3), those who choose ‘οὐδέ’ prefer ‘to be or not to be’ and those who choose ‘οὐ’ prefer ‘a verb uttered by itself.’ I say ‘generally’ because Boethius, who finally takes ‘a verb uttered by itself’ as the subject of the sentence, may have translated ‘οὐδέ’ as ‘*neque*’.<sup>53</sup> Those who choose ‘οὐδέ’ and take ‘to

<sup>49</sup> This text is taken from AL II-1 with one alteration in (3), which Minio-Paluello edits as “Neque enim ‘esse’ signum est rei vel ‘non esse.’” The edition seems to show his reading of the text that the subject of the sentence is ‘esse vel non esse.’ As we will see, Boethius does not take this reading as his best (final) reading of (3).

<sup>50</sup> See Chapter 4, § 3.4.

<sup>51</sup> See Ackrill’s translation cited above; Montanari 1984: 114 and 1988: 253 sqq.

<sup>52</sup> Weidemann 2002: 5 and 183.

<sup>53</sup> Montanari 1988: 256–257: “Boezio non traduce οὐδέ rispettando l’accezione ‘forte’ («nemmeno») che ritengo gli competa, la sua resa *neque*, ancorché ambigua, ben difficilmente potrà riprodurre un semplice οὐ, soprattutto in una situazione testuale ove sicura-



be or not to be' as the subject read sentence (3) as Ackrill's translation: "For not even 'to be' or 'not to be' is a sign of the thing." In this reading, the verb 'is' is regarded as a primitive verb in comparison with the other verbs.

As for the difference between the Greek original and the Latin translation, I should mention two things. First, in (4), Boethius translates the Greek word 'τὸ ὄν' (being) as '*est*' (is). Accordingly, Boethius claims 'is' (*est*) as the subject of (5) and (6). In Greek, 'τὸ', the neuter singular of the definite article, is frequently used for designating the expression itself.<sup>54</sup> Boethius obviously knows the usage and applies it to 'τὸ ὄν' in the text. Taking 'ὄν' as a present participle of εἶναι (to be),<sup>55</sup> he would refrain from translating 'ὄν' as '*ens*' because '*ens*' is for him a philosophical idiom that stands generally for a thing that exists.<sup>56</sup> After the invention of '*ens*', this became the current usage of the word. In the context where 'τὸ ὄν' decidedly means 'a thing that exists,' he translates it as '*ens*'.<sup>57</sup> In addition, he does not translate the present participle of εἶναι in his translation of Porphyry's *Isagoge*.<sup>58</sup> His own division of 'parts of speech,' which we saw in

---

mente una lezione οὐ si oppone ad una οὐδέ ... Piuttosto quindi che concludere che non è possibile ricavare con certezza quale lezione seguisse Boezio." Although this fact does not absolutely mean that Boethius did not read Ammonius' commentary, it increases the possibility.

<sup>54</sup> Barnes 2003: 320.

<sup>55</sup> Harold Cook (1962) translates 'τὸ ὄν' as "participle 'being.'" Weidemann (2002: 185) and Montanari (1988: 264–267) explain that it is the participle 'ὄν'. In contrast, Ammonius (as we will soon see later in § 5.3) and Ackrill (see his translation cited above) take 'τὸ ὄν' as a noun.

<sup>56</sup> Powell 1995b: 296, n. 52: "The original, etymological present participle of *esse* must have been *sons*, which by the time of any extant Latin had already become specialized to mean 'guilty' (i.e. identified as *being* the person who committed the offence). Latin managed well without such a participle for all practical purposes, since *cum sit/esset* or *qui est/erat/esset* did the job quite effectively. Caesar apparently suggested *ens* (Priscian, GKL iii. 239), a coinage which passed into philosophical idiom in the post-classical period." The text mentioned by Powell is Priscianus, *Inst.* XVIII, 239.5–9: "Graeci autem participio utuntur substantivo ..., quo nos quoque secundum analogiam possemus uti, nisi unus deficeret participii frequens. Quamvis Caesar non incongrue protulit '*ens*' a verbum '*sum*, *es*, quomodo a verbo '*possum*, *potes*, *potens*."

<sup>57</sup> Porphyry, *Isag.* § 10, 6.8–9: "καὶν δὴ πάντα τις ὄντα καλεῖ, ὁμωνύμως, φησί, καλέσει, ἀλλ' οὐ συνωνύμως." AL I-6, 12.2–3: "Vel, si omnia quis entia vocet, aequivoce (inquit) nuncupabit, non univocē." Also Aristotle, *PrA* I. ch. 38, 49a27–49b2 and Boethius tr. *PrA*, 80.9–24; 173.21–174.6 ('τὸ ὄν' as '*ens*' and 'τὸ τι ὄν' as '*quid ens*').

<sup>58</sup> Porphyry, *Isag.* § 1, 1.6: "χρησίμης οὐσης τῆς τούτων θεωρίας" ALI-6, 5.6–7: "utili hac istarum rerum speculatione." This difference is noted by Ebbesen 1987: 288, n. 11 = repr., 375, n. 11.

Chapter 4 (§ 2.2), adds justification for his rendering of the present participle ‘ὄν’ as the verb ‘*est*’ because logically speaking, present participles are verbs.

Second, in (3), Boethius translates the Greek words ‘τοῦ πράγματος’ as ‘*rei*.’ This is not a mistranslation because Latin lacks definite articles. As a result, however, the Latin translation can mean either ‘of the thing’ or ‘of a thing’ whereas the word in Greek with the definite article means ‘of *the* thing,’ not ‘of a thing’ or ‘of any thing whatever.’<sup>59</sup> As we will see later, Boethius proposes two different readings and his first reading takes ‘*rei*’ as ‘of a thing’ but his second reading takes it as ‘of the thing.’ If ‘*rei*’ is understood as ‘of a thing,’ it is unlikely that sentence (3) has ‘a verb uttered by itself’ as its subject because it is absurd to claim that a verb uttered by itself is not a sign of a thing. For example, we would say that verbs ‘to run’ and ‘to sit’ uttered by themselves are signs of some actions.

### 5.2. Boethius’ Exposition

I will now deal with Boethius’ second commentary on Aristotle’s text (3)–(6). In the following analysis, I am going to concentrate on the question of whether we can find the notion of the copula in the commentary, putting aside whether he understands Aristotle’s text correctly or not. Since Boethius’ explanation in this part is not always clear, and my reading is often different from De Rijk’s, I will divide Boethius’ text into nine parts and will closely look at Boethius’ statements in each of the nine parts of the text. I will translate Boethius’ text but will leave his quotation of the most problematic sentence (3) in original Latin because translating this sentence into English is coupled with choosing a particular interpretation of this sentence. As we will see, Boethius discusses two possible interpretations of this sentence and chooses one.

[1] As for the following sentence “*Neque enim signum est rei esse vel non esse*,” [Aristotle] means this: ‘to be’ (*esse*), which is a verb, or ‘to non be’ (*non esse*), which is an indefinite verb, is ‘not a sign of a thing,’ that is, it signifies nothing by itself. For ‘to be’ (*esse*) is imposed (*ponitur*) only in some composition.<sup>60</sup>

<sup>59</sup> Greek lacks indefinite articles, but “it would be too bold to read the indefinite τοῦ [should be ‘τοῦ’ to be accurate] in front of the genitive πράγματος” (De Rijk 2002, 1: 217, n. 101, correction mine). “If this is what he [Aristotle] means to say, you would expect him to write, using the indefinite article: πράγματος τινός or τινός πράγματος” (op. cit., 217).

<sup>60</sup> In *PH*<sup>2</sup> 76.10–15 (single quotation marks added): “Quod autem addidit: neque enim signum est rei esse vel non esse tale quiddam est: ‘esse’ quod verbum est, vel ‘non esse’

Boethius proposes the first reading of (3) "*Neque enim signum est rei esse vel non esse*" as "‘To be’ or ‘not to be’ is not a sign of a thing." Taking the infinitives ‘to be’ (*esse*) and ‘not to be’ (*non esse*) as equivalent to the verb ‘is’ and the indefinite verb ‘non-is’ (*non est*),<sup>61</sup> he suggests that they signify nothing by themselves because ‘to be’ is imposed only in some composition, and therefore, signifies something only in the composition. He does not comment on the ‘composition.’ By the ‘composition,’ as we will see later, he could mean the composition of a subject-term and ‘is’ (“S is”), or the composition of a subject-term, a predicate-term and ‘is’ (“S is P”), or both of these.

[2] Or certainly every verb uttered by itself signifies something, but “whether it is or is not, it does not yet signify.” When something has been said, due to this [word alone], it does not signify to be or not to be. And Aristotle says this: "*Neque enim signum est rei esse vel non esse*." As for the thing that a verb signifies (*designat*), the verb itself which is said of that thing is not a sign of its being (*esse*) or not being (*non esse*). In other words, the uttered verb is not a sign of being (*esse*) or not being (*non esse*) of the thing, that is, the thing of which the verb is said. Saying “being (*esse*) or not being (*non esse*) of the thing” is like saying “signifying the thing itself to be (*esse*) or not to be (*non esse*).”<sup>62</sup>

Boethius noticed that the first reading conflicts with the established fact that a verb (which should include the verb ‘to be’) uttered alone signifies something. He also saw that sentence (3) makes sense in connection with the preceding sentence (2): “it [a verb uttered by itself] does not yet signify whether it is or is not.” Thus he proposes the second reading of the same sentence (3): A verb uttered by itself is not a sign of being or not being of the thing that is signified by the verb.<sup>63</sup> A verb, even if

---

quod infinitum verbum est, non est signum rei id est nihil per se significat. ‘Esse’ enim nisi in aliqua compositione non ponitur.”

<sup>61</sup> As I said on page 135 (Chapter 4, § 3.3), indefinite verbs are distinguished from negations by definition (e.g., ‘non-runs’ is not equivalent to ‘does not run’), but ‘is’ seems to be an exception to this rule. That is to say, ‘is not’ is equivalent to ‘non-is.’

<sup>62</sup> In *PH*<sup>2</sup> 76.15–26: “Vel certe omne verbum dictum per se significat quidem aliquid, sed si est vel non est, nondum significat. Non enim cum aliquid dictum fuerit, idcirco aut esse aut non esse significat. Atque hoc est quod ait: neque enim signum est rei esse vel non esse. Etenim quam rem verbum designat esse eius vel non esse non est signum ipsum verbum, quod de illa re dicitur, ac si sic diceret: neque enim signum est verbum quod dicitur rei esse vel non esse, hoc est de qua dicitur re, ut id quod dico rei esse vel non esse tale sit, tamquam si dicam rem ipsam significare esse vel non esse.”

<sup>63</sup> Weidemann holds the same reading as the one presented here: “Werden sie für sich allein ausgesprochen, so sind die Aussagewörter Nennwörter, als welche sie auch etwas bedeuten; denn jemand, der ein solches Wort ausspricht, bringt sein Denken (bei der mit

uttered alone, signifies some action or passion, for instance, the action of running.<sup>64</sup> A verb, however, does not signify whether there *is* an action or not unless the subject in which the action inheres is added explicitly or implicitly: “*currit*” in Latin means “*he/she runs*.” A single word—“*curre*” (to run) in Latin, or ‘runs’ in English—does not indicate whether there is an action of running or not.<sup>65</sup>

[3] This (= [2]) is the better understanding: A verb [uttered by itself] is not a sign of the thing of which ‘to be’ or ‘not to be’ is said, namely [a sign of the thing’s] subsisting or non-subsisting because the former [i.e., ‘to be’ in the sense of subsisting] is [the function] of an affirmation and the latter [i.e., ‘not to be’ in the sense of non-subsisting] is [the function of] a negation. Hence, the meaning [of the sentence “*Neque enim signum est rei esse vel non esse*”] is this: A verb that is uttered [by itself] is not a sign of subsisting or non-subsisting of the thing.<sup>66</sup>

Boethius considers the second reading of (3) as a better of the two and paraphrases this reading, taking the expressions ‘to be’ and ‘not to be’ as being equivalent to ‘to subsist’ and ‘not to subsist’: A verb uttered by itself is not a sign of the subsisting or not subsisting of the thing of which this verb is predicated. His use of ‘to subsist’ is not strictly consistent among his different works,<sup>67</sup> but all his uses of this term seem to share the basic meaning of ‘to exist.’<sup>68</sup> (α) A verb uttered by itself does not

---

ihm gemeinten Sache) zum Stehen, und jemand, der es hört, kommt (in seinem Denken bei dieser Sache) zum Stillstand. Ob aber das, was es bedeutet, ist oder nicht ist, dies bedeutet ein Aussagewort für sich allein noch nicht; denn (für) das Sein der (mit ihm gemeinten) Sache oder deren Nichtsein ist es kein Zeichen” (2002: 5).

<sup>64</sup> For the definition and the signification of a verb, see Chapter 4, § 3.2.

<sup>65</sup> In *PH*<sup>1</sup> 64.15–18.

<sup>66</sup> In *PH*<sup>2</sup> 76.26–77.1: “Atque hic est melior intellectus, ut non sit signum verbum eius rei de qua dicitur esse vel non esse, subsistendi scilicet vel non subsistendi, quod illud quidem adfirmationis est, illud vero negationis, et ut sit talis sensus: neque enim verbum quod dicitur signum est subsistendi rem vel non subsistendi.”

<sup>67</sup> Boethius renders ‘ὀφίστασθαι’ as ‘*subsistere*’ in his translation of Porphyry’s *Isagoge* (see Porphyry, *Isag.* § 1, 1.10 and AL I-6, 5.11). But see *Contra Eutychen* 3, 253.206–213: “Nam quod Graeci οὐσίωσιν vel οὐσίωσθαι dicunt, id nos subsistentiam vel subsistere appellamus; quod vero illi ὑπόστασιν vel ὑφίστασθαι, id nos substantiam vel substare interpretamur. Subsistit enim quod ipsum accidentibus, ut posit esse, non indiget. Substat autem id quod aliis accidentibus subiectum quoddam, ut esse valeant, subministrat; sub illis enim stat, dum subiectum est accidentibus.” De Libera (e.g., 1996a: 36, n. 15 and 1997) pays special attention to the difference. For further discussion on ‘*subsistere*’ in Boethius’ works, see Tisserand 2008: 200–231 and King: 2011 § 2.

<sup>68</sup> Tisserand (2008: 213): “Dans ces emplois, *subsister* [should be ‘*subsistere*’] et *subsistence* indiquent donc bien pour une chose qu’elle est, ou le fait qu’elle est, sans que Boèce précise autrement ce fait d’être: nous avons, explicitement dégagées par lui, les implications réciproques de *subsistere* avec *esse* et *constare*, et de *subsistens* / *subsistentia* avec *ens*,

indicate whether the action or the passion designated by the verb uttered by itself exists or not. He states this is because ( $\beta$ ) 'is' and 'is not' are the functions of an affirmation and a negation. We saw that he made statements relevant to this in his monographs on logic (§ 3) and also in his second commentary on Aristotle's chapter 10 (§ 4).<sup>69</sup> He does not say why ( $\beta$ ) establishes ( $\alpha$ ). There is probably a hidden assumption ( $\gamma$ ) that a single word (a noun or a verb or something else) is neither an affirmation nor a negation. As is mentioned in the previous chapter (§ 3), an affirmation predicates some thing of some thing and a negation removes some thing from some thing. To be an affirmation or a negation, therefore, at least two words that stand for 'some things' are required (although one of them may not be expressed, as in '*currit*').

[4] But as for the following phrase, "nor if you say 'is' (*est*) alone," or if we state it thus, "nor if you say 'being' (*ens*) alone," Alexander says that 'is,' or 'being,' is equivocal. For all the categories, which fall under no common genus, are equivocal, and 'to be' (*esse*) is predicated of all of them. For "A substance *is*," "a quality *is*," "a quantity *is*" and so on. Hence, [Aristotle] here seems to mean this: 'Being,' or 'is,' from which 'to be' (*esse*) is derived, signifies nothing by itself. For no equivocal, posited *per se*, signifies (*designat*) anything. Unless it is applied to particular things (*res quaeque*) by the will of a signifier, it signifies none (*nulla*) by itself, because it [i.e., 'being' or 'is'] signifies many (*multa*).<sup>70</sup>

---

*id quod est, et essentia.*" As a Greek equivalent to '*subsistere*,' Boethius may have '*ὑπάρχειν*' in mind. Ammonius uses '*ὑπάρχειν*' in similar contexts (*In PH* 55.20; 55.29–30; 56.24, which is cited in note 113 of this chapter). In addition, Boethius translates "*ἐπὶ τὸ πολὺ προϋπαρχόντων τῶν πραγμάτων*" (*Cat.*, ch. 7, 7b24–25) as "in pluribus subsistentibus iam rebus" (*AL I-1*, 21.8–9).

<sup>69</sup> *De cat. syll.* 16.9–10 = 798a (for the Latin text, see note 24 of this chapter); *Introd. cat. syll.* 25.5–7 = 769a (see note 28 of this chapter); *In PH*<sup>2</sup> 265.27 (see note 38 of this chapter) and *In PH*<sup>2</sup> 270.2 (see note 42 of this chapter).

<sup>70</sup> *In PH*<sup>2</sup> 77.1–13 (Punctuation altered from Meiser and single quotation marks added): "Sed quod addidit: 'nec si hoc ipsum est purum dixeris' vel si ita dicamus 'nec si hoc ipsum ens [MSS: est] purum dixeris.' Alexander quidem dicit 'est' vel 'ens' aequiuocum esse. Omnia enim praedicamenta, quae nullo communi generi subduntur, aequiuoca sunt et de omnibus 'esse' praedicatur. 'Substantia est' enim et 'qualitas est' et quantitas et cetera. Ergo nunc hoc dicere videtur: ipsum 'ens' vel 'est', unde 'esse' traductum est, per se nihil significat. Omne enim aequivocum per se positum nihil designat. Nisi enim ad res quasque pro voluntate significantis aptetur, ipsum per se eo nullorum significativum est, quod multa significat." '*Ens (purum)*' by Meiser's hands cannot be found in MSS but is printed in Boethius' *Opera* published in 1570 (*Editio Basileensis*). The MSS have either '*est purum*' or '*purum est*.' Without this correction, however, the sentence becomes redundant. The next sentence mentions 'being' in addition to 'is,' which supports Meiser's correction.

Boethius proceeds to the next sentence (4) and the following (5)–(6). He introduces Alexander of Aphrodisias' account that 'is' and 'being' are equivocal because they can be applied to things under different categories, and, therefore, signify nothing by themselves.<sup>71</sup> Behind this interpretation is Aristotle's well-known thesis: 'Being' (ὄν) is said in many ways, principally of substances and of accidents in their relations to substances.<sup>72</sup> De Rijk claims that Boethius criticizes Alexander about the equivocity of being.<sup>73</sup> This argument may be too strong though. I think that Boethius would accept the position that 'being' and 'is' are equivocal. Porphyry, in his *Isagoge*, expresses the view that we call everything 'being' (ὄν) *equivocally* and not *univocally*.<sup>74</sup> In his second commentary on *Isagoge*, Boethius follows Porphyry and states that 'being' (*ens*) is said of all categories *equivocally* (*aequivoce*) and not *univocally* (*univoce*).<sup>75</sup> He probably thinks that Alexander's claim itself makes sense, but judged that it is not the best interpretation of Aristotle's text (4)–(6) [= 16b23–25]. We can observe the pattern in his commentaries on *Peri hermeneias*: Alexander's account is satisfactory but not the best one, which Porphyry offers.<sup>76</sup> Hence, he moves onto Porphyry's interpretation.

[5] Porphyry put forward another explanation, which is as follows: This word 'is' by itself points out (*monstrat*) no substance, but it is always some conjunction, either of things that exist if it is applied simply (*simpliciter*) or of something else according to participation. When I say, "Socrates is" (*Socrates est*), I mean that Socrates is one of the things that exist, combining Socrates with those things that exist. On the other

<sup>71</sup> There are parallel statements in Alexander's commentary on *Metaphysics*. Alexander says that being, which is said of a substance or an accident (*In Met.* 242.10–12), is something intermediate between univocals and equivocals (*In Met.* 241.8–9); 'being' is equivocal, broadly speaking (*In Met.* 241.21–22).

<sup>72</sup> *Met.* IV, ch. 2, 1003b5–10.

<sup>73</sup> De Rijk 2002, 1: 223: "Boethius criticizes Alexander's account because he in fact claims (to Boethius' mind, that is) that the notion of 'be-ing' is equivocal, and thus, when used in isolation, it does not unequivocally apply to any mode of being, since it may refer to a non-subsistent mode as well as a subsistent one (substance)."

<sup>74</sup> *Isag.* § 10, 6.8–9. For Porphyry's text and Boethius' translation, see n. 57 of this chapter.

<sup>75</sup> *In Isag.*<sup>2</sup> 223.19–24: "Itaque id quod dicitur ens, etsi de omnibus dicitur praedicamentis, quoniam tamen nulla eius definitio inueniri potest quae omnibus praedicamentis possit aptari, idcirco non dicitur uniuoce de praedicamentis, id est ut genus, sed aequivoce, id est uox plura significans."

<sup>76</sup> Compare *In PH*<sup>1</sup> 132.3–8 with *In PH*<sup>2</sup> 276.8 and see *In PH*<sup>2</sup> 26.1–21 (and see note 96 of Chapter 3). See also Magee 2008: 11 and 2010: 49; Ebbesen 2009b: 49.

hand, if I say, "Socrates is a philosopher," I mean that Socrates participates in philosophy. In this case, too, I combine Socrates with philosophy.<sup>77</sup>

Boethius introduces Porphyry's view that 'is' is always a conjunction but in two ways.<sup>78</sup> (i) 'Is' is applied to the subject without something else. It combines the subject with things that exist. The example "Socrates is" describes the fact that Socrates belongs to the group of things that exist, and 'is' in the sentence combines the subject 'Socrates' with a being; (ii) 'Is' is applied to the subject according to 'participation.' It makes the subject 'participate in' something and thus combines the subject with the thing participated in. "Socrates is a philosopher" describes the fact that Socrates 'participates in' philosophy.<sup>79</sup> 'Is' in this sentence combines 'Socrates' and the activity 'philosophy' that defines the nature of 'a philosopher.'

[6] Therefore, this 'is' that I utter holds the force (*vis*) of some conjunction, not the force of a thing, because even if it holds the promise of some proposition and copulation, it signifies nothing at all when it is uttered alone.<sup>80</sup>

Boethius summarizes Porphyry's view above. 'Is' by itself does not signify a thing but has the function ('force') of a conjunction.<sup>81</sup> 'Is' can produce a proposition and 'copulation' and can signify something. Without other word(s), however, the 'copulation' is impossible. De Rijk regards 'copulation' (*copulatio*) as the function of the copula. It is a tempting idea. Boethius employs '*copulatio*' for the composition in "S is P" but not

<sup>77</sup> In *PH*<sup>2</sup> 77.13–23 (single quotation marks added): "Porphyrius vero aliam protulit expositionem, quae est huiusmodi: sermo hic, quem dicimus 'est', nullam per se substantiam monstrat, sed semper aliqua coniunctio est: vel earum rerum quae sunt, si simpliciter adponatur, vel alterius secundum participationem. Nam cum dico Socrates est, hoc dico: Socrates aliquid eorum est quae sunt et in rebus his quae sunt Socratem iungo; sin vero dicam 'Socrates philosophus est', hoc inquam: Socrates philosophia participat. Rursus hic quoque Socratem philosophiamque coniungo."

<sup>78</sup> According to Thomas Aquinas' commentary on *Peri hermeneias*, Porphyry says that 'being' (*ens*) designates some conjunction: "Unde Porphyrius aliter exposuit quod hoc ipsum 'ens' non significat naturam alicuius rei, sicut hoc nomen 'homo' uel 'sapiens', set solum designat quandam coniunctionem" (In *PH* I, lec. 5, 30.331–334 = n. 70).

<sup>79</sup> This is the only place where Boethius uses '*participatio*' in his commentaries on *Peri hermeneias*. Tisserand (2008: 140, n. 1) gives brief consideration to this instance of '*participatio*'.

<sup>80</sup> In *PH*<sup>2</sup> 77.23–26: "Ergo hoc est quod dico vim coniunctionis cuiusdam optinet, non rei. Quod si propositionem [Meiser: compositionem] aliquam copulationemque promittit, solum dictum nihil omnino significat."

<sup>81</sup> I discussed various meanings of 'force' (*vis*) in Chapter 4, § 4, pp. 141 sqq. In text [6], the first 'force' means 'function' while the second means 'meaning' or 'reference.'



for the composition in “S is.”<sup>82</sup> Hence, one may infer that by ‘copulation’ he means a composition of a subject and a predicate with ‘is’ (“S is P”). Don’t we call the ‘is’ that makes this type of composition ‘a copula’? I will give a full answer to this question at the end of this chapter, so let’s not jump to conclusions. In Boethius’ works, ‘copulation’ is not a technical expression for the function of the copula. The verb ‘couple’ (*copulare*)—the noun ‘copulation’ is derived from this verb—is not used exclusively for ‘is’ in “S is P.” He uses ‘couple’ to explain the function of the conjunction ‘if’ (*si*): “If it is day, it is light.” The two propositions, “it is day” and “it is light,” are joined and coupled (*copulantur*) by the conjunction ‘if.’<sup>83</sup>

[7] That is why he [Aristotle] says: “If you say ‘is’ purely,” namely alone, it signifies (*designat*) neither truth nor falsity in any manner, but “it is nothing at all.” He has clarified what he had pursued: “But it signifies some composition,” he says, “which cannot be understood without its components.” That is to say, if the verb ‘is’ (*est*) holds the force of composition and some conjunction and its proper place, it signifies nothing when it is predicated purely without the conjunction. It can, however, signify the very composition that it signifies (*designat*) when the things that are composed have been combined; we cannot understand what it signifies without its components.<sup>84</sup>

Porphyrus’ account of ‘is’ summarized by Boethius fits in with the remaining sentences of Aristotle’s text [(5) and (6)]. To signify something, a conjunction ‘is’ needs to be combined with other words. Once combined with other words, he says, ‘is’ signifies the ‘composition.’ The Latin

<sup>82</sup> See *In PH*<sup>1</sup> 65.25–66.4 (cited in note 91 of this chapter).

<sup>83</sup> *In PH*<sup>2</sup> 110.1–4 (single quotation marks added): “[S]i dies est, lux est. Duae enim propositiones, quae sunt istae ‘dies est’, ‘lux est’, si coniunctione copulantur.” Cf. Gellius, *Noctes atticae* XVI, viii [10] 486.10–13 = Varro, *De lingua latina*, Fr. 28, 10: “Item quod illi συμπεπλεγμένον, nos vel coniunctum vel copulatum dicimus, quod est eiusdemmodi: P. Scipio, Pauli filius, et bis consul fuit et triumphavit et censura functus est et collega in censura L. Mummi fuit.” In *De lingua latina* VIII, § 10 168.5, Varro calls a coordinate conjunction, that is ‘and’ (*et*), ‘a copula’ (*copula*).

<sup>84</sup> *In PH*<sup>2</sup> 77.26–78.8 (single quotation marks added): “Atque hoc est quod ait: nec si ipsum ‘est’ purum dixeris id est solum: non modo neque veritatem neque falsitatem designat, sed omnino nihil est. Et quod secutus est planum fecit: significat [Meiser: consignificat], inquit, autem quandam compositionem, quam sine compositis non est intellegere. Nam si ‘est’ verbum compositionis coniunctionisque cuiusdam vim et proprium optinet locum, purum et sine coniunctione praedicatum nihil significat, sed eam ipsam compositionem, quam designat, cum fuerint coniuncta ea quae componuntur, significare potest, sine compositis vero quid significet non est intellegere.” Meiser’s correction of the quotation of Aristotle’s statement “it co-signifies some composition,” which is an accurate translation of the Greek text, is not necessary.



expression of 'composition' (*compositio*) could mean a result of composition, i.e., a composite, as well as an act of composition. Here he seems to mean both.

[8] Or certainly, his words "it [i.e., 'is'] itself is indeed nothing" should not be understood in such a way that it signifies nothing, but that it points out nothing true or false if it is said purely. When it [i.e., 'is'] is combined, an enunciation results; but when the verb is uttered simply (*simpliciter*), it does not result in signification of the true or the false.<sup>85</sup>

Boethius says that we should not take 'nothing' in Aristotle's statement "it itself is indeed nothing" literally as *nothing*, but instead, as the absence of a truth-value. He thereby suggests that 'is' by itself in fact signifies *something* even though up to this point ([8]) he has claimed that 'is' by itself signifies *nothing*. Looking back to [7], we find that he may have already suggested this interpretation when he says, "If you say 'is' purely, namely alone, *it signifies neither truth nor falsity in any manner, ...*"<sup>86</sup>

[9] The whole meaning [of this text] is the following: verbs uttered by themselves are nouns (because one who utters [the verbs] produces a thought (*intellectus*) and one who listens to [the verbs] comes to rest). Although verbs signify something, they do not yet signify an affirmation or a negation. For, despite the fact that they signify (*designare*) the thing, it [a verb uttered by itself] is not yet a sign of subsisting of the thing. If we have uttered 'is' itself or 'being' (*ens*) itself, we shall also not be able to find anything true nor false in this [utterance]. For, although it ['is' or 'being'] itself signifies something, it is not yet true or false. But an enunciation results in a composition, and truth and falsity are born in it. It is impossible to understand truth and falsity without those [items] which are composed or combined.<sup>87</sup>

<sup>85</sup> In *PH*<sup>2</sup> 78.8–14 (single quotation marks added): "Vel certe ita intellegendum 'est' quod ait ipsum quidem nihil est, non quoniam nihil significet, sed quoniam nihil verum falsumve demonstret, si purum dictum sit. Cum enim coniungitur, tunc fit enuntiatio, simpliciter vero dicto verbo nulla veri vel falsi significatio fit."

<sup>86</sup> In *PH*<sup>2</sup> 77.26–29. The Latin text is cited in note 84 of this chapter.

<sup>87</sup> In *PH*<sup>2</sup> 78.14–26 (single quotation marks added): "Et sensus quidem totus huiusmodi est: ipsa quidem verba per se dicta nomina sunt (nam et qui dicit intellectum constituit et qui audit quiescit) sed quamquam significant aliquid verba, nondum adfirmationem negationemve significant. Nam quamvis rem designent, nondum tamen subsistendi eius rei signum est, nec si hoc ipsum 'est' vel 'ens' dixerimus, aliquid ex eo verum vel falsum poterit inveniri. Ipsum enim quamquam significet aliquid, nondum tamen verum vel falsum est, sed in compositione fit enuntiatio et in ea veritas et falsitas nascitur, quam veritatem falsitatemque sine his quae componuntur coniungunturque intellegere impossibile est."

Boethius reviews his interpretation of Aristotle's text (1)–(6) as a whole. Here, as in [8], he claims that 'is' by itself signifies *something* by itself.

Throughout his discussion of Aristotle's text (16b19–25), Boethius appears to hold two repugnant positions. On the one hand, he states that 'is' by itself signifies *nothing* (in [1], [6] and [7]). On the other hand, he states that 'is' by itself signifies *something* (in [8] and [9]). It is not until [8] that he says that 'nothing' in the statement "'is' itself signifies nothing" means the absence of a truth-value. If we impose this interpretation of 'nothing' on the earlier parts ([1], [6] and [7]), we can reconcile the two positions: Boethius claims no more than that 'is' by itself signifies no truth-value.<sup>88</sup> But I do not deem that this is his intent. I think he believes that 'is' signifies literally nothing in some cases.

In the first commentary, he goes straightforwardly to the readings of his final choice. He states that the subject of sentence (3) is 'a verb uttered by itself' and that 'nothing' in (5) means the absence of a truth-value.<sup>89</sup> He indicates no other reading of the text (16b19–25) than that a verb uttered by itself signifies no truth-value. In the second commentary, why does he bother to mention a reading that he does not finally select? Introducing different readings is his standard method in his second commentary. He usually does so to criticize them, but he is awkward in this discussion. In addition, why then does he wait until [8] to say that 'nothing' means the absence of a truth-value? There must be a reason why he makes such a detour.

I conjecture the reason is that Boethius sees two different types of 'is' in Aristotle's text. The first type is a *'tertium adiacens'*, which forms a proposition in combination with a subject-term and a predicate-term ("S is P"). The second type makes a proposition in combination with a subject-term ("S is"). In his lost commentary on *Peri hermeneias*, Porphyry supposedly calls the second "a conjunction of things that exist" and the first "a conjunction of something else according to participation."<sup>90</sup> The first type of 'is' by itself signifies *nothing* without the components, i.e., the subject and the predicate. The second type of 'is' by itself signifies *something*, that is, a concept (*intellectus*) of existence. To acknowledge these two types of 'is' leads to the endorsement of the equivocity of 'is'.

<sup>88</sup> Rosier-Catach (2003: 68 and 2009: 112) seems to read the text in this manner.

<sup>89</sup> In *PH*<sup>1</sup> 64.24–65.8 and In *PH*<sup>1</sup> 65.19–24.

<sup>90</sup> In *PH*<sup>2</sup> 77.13–23 (= Boethius' text [5] on pp. 206–207).

In his first commentary on the same text of Aristotle (16b23–25), Boethius lays out the two types of 'is' in his own words:

'Is' is said in two ways to signify (*designet*) the true and false. In one way, 'is' establishes one thing (*res*) in the proper composition. For instance, if I were to say "A man is" (*homo est*), 'is' itself is combined or composed with 'a man,' and an enunciation results. In another way, two things are combined by the composition or copulation of the verb [i.e., 'is']. For instance [in the sentence] "A man is an animal," a man and an animal are coupled (*copulantur*) or combined by the statement "A man is an animal."<sup>91</sup>

Boethius first mentions the type of 'is' that establishes the existence of a single thing in combination with the subject (e.g., a man). Then, he mentions another type of 'is' that establishes the relationship between two things (e.g., a man and an animal) by combining them together.

It is reasonable to infer that Boethius endorses these two types of 'is' and these two types of composition in the second commentary as well. In the second commentary, Boethius introduces these two types of 'is' as Porphyry's interpretation. I believe his lack of criticism of Porphyry implies his agreement with Porphyry's point of view.<sup>92</sup> Boethius has the highest regard for Porphyry among all commentators on Aristotle.<sup>93</sup> In *On Categorical Syllogism*, he calls Porphyry "a man of the most weighty authority" (*gravissimae vir auctoritatis*).<sup>94</sup> Jean Bidez claims that Boethius adds nothing to Porphyry's works.<sup>95</sup> This is certainly too strong a statement to make because Boethius challenges Porphyry on the inclusion of conditional propositions in the group of single propositions (as we saw in Chapter 5, § 5.2).<sup>96</sup> However, it is incontestable that Boethius often accepts Porphyry's interpretations. We have observed many instances of

<sup>91</sup> *In PH*<sup>1</sup> 65.25–66.4 (single quotation marks added): "'Est' enim duobus modis dicitur, ut verum falsumque designet: aut cum unam rem quamlibet propria compositione constituit, ut cum dico 'homo est', ipsum 'est' cum homine iunctum atque compositum esse hominem constituit et fit exinde enuntiatio; aut rursus cum duae res per ipsius verbi compositionem copulationemque iunguntur, ut est 'homo animal est'. Homo namque et animal copulantur atque iunguntur per id quod dicitur 'homo animal est'."

<sup>92</sup> Magee (2010a: 34–35) claims that Boethius may be against Porphyry in text [3]. Catach-Rosier (2009: 112) claims that Boethius seems to criticize Porphyry's explanation in text [8]. I think that Boethius does not argue against Porphyry at any point in texts [1]–[9]. Smith (2010: 153, n. 67) suggests that the interpretation that 'is' co-signifies something true or false (in text [8]) is probably also Porphyry's.

<sup>93</sup> *In PH*<sup>1</sup> 132.5–6; *In PH*<sup>2</sup> 7.5–7; *In Cat.* 160a–b.

<sup>94</sup> *De cat. syll.* 54.17 = 814c. For more discussion about the relationship between Boethius and Porphyry, see Obertello 1974, 1: Part 3, ch. 4; Ebbesen 2008: 109–113.

<sup>95</sup> Bidez 1923.

<sup>96</sup> *In PH*<sup>2</sup> 110.11–14.

this in our discussions in preceding chapters.<sup>97</sup> Having the two types of ‘is’ in mind, we can reasonably understand Boethius’ bewildering commentary on Aristotle’s text (16b22–25).

### 5.3. *Ammonius’ Exposition*

Having analyzed Boethius’ explanation, let’s proceed to Ammonius’ commentary, which De Rijk claims is Boethius’ main source.

Ammonius gives an explanation similar to Boethius’ in his commentary on Aristotle’s chapter 10. He states that ‘is’ is called ‘the third item’ not because it occupies the third place (τρίτη τάξις) in a proposition but because ‘is’ is added to the two terms (ὄροι), that is, a subject and a predicate. He also argues that ‘is’ is predicated according to the second place (κατὰ δευτέραν τάξιν) or ‘additionally-predicated’ (ἐπικατηγορεῖσθαι).<sup>98</sup> In the sentence “A man is just,” he says, ‘just’ by itself is not sufficient to make an affirmation in combination with the subject ‘a man’; ‘is’ is added so that ‘is’ and ‘just’ as a whole (‘is just’) is said of a man.<sup>99</sup> Thus Ammonius claims that ‘is’ is on the side of a predicate. This implies that he opposes the notion of the copula in this part of his commentary.<sup>100</sup>

But it is in Ammonius’ commentary on Aristotle’s chapter 3 that De Rijk finds the affinity with Boethius’ account. Contrary to De Rijk, I find that Ammonius’ explanation remarkably varies from Boethius’. Paying attention to their differences, I will concisely follow Ammonius’ explanation of Aristotle’s text (3)–(6).<sup>101</sup>

<sup>97</sup> For example, nn. 44, 57, 72 of Chapter 1; n. 3 of Chapter 3; n. 63 of Chapter 4; n. 30 and § 6.2 of Chapter 5.

<sup>98</sup> In PH 165.5–10: “ὅταν οὖν, φησί, τὸ ἔστι τρίτον προσκατηγορεῖται, οὐχ ὡς τρία μὲν ἄξιων εἵναιτ᾽ ἐν τῇ προτάσει κατηγορούμενα τρίτην δὲ ἔχειν τάξιν ἐν αὐτοῖς τὸ ἔστιν, ἀλλὰ τρίτον μὲν ἐν τῇ προτάσει πρὸς τοῖς δύο ὄροις, τῷ τε ὑποκειμένῳ καὶ τῷ κατηγορουμένῳ, κατὰ δευτέραν μέντοι τάξιν καὶ αὐτὸ ἔχον τὸ κατηγορεῖσθαι καὶ ὥστερ ἐπικατηγορεῖσθαι.”

<sup>99</sup> In PH 165.10–16: “ὅταν γοῦν εἴπωμεν ‘ἄνθρωπος δίκαιός ἐστι,’ τοῦ ὑποκειμένου τοῦ ἀνθρώπου προηγουμένως μὲν τὸ δίκαιον κατηγορήσαμεν, ἐπειδὴ τοῦτο προεθέμεθα περὶ αὐτοῦ ἀποφῆνασθαι, διότι δὲ οὐκ ἦν αὐταρκές τοῦτο τῷ ὑποκειμένῳ συμπλακὲν πρὸς τὸ ποιῆσαι ἀπόφανσιν, τὸ ἔστιν αὐτοῖς προστέθειται συνδέον τε αὐτά, ὡς εἴρηται πρότερον, καὶ ἐπικατηγορούμενον τοῦ ὑποκειμένου· τὸ ὅλον γοῦν τοῦτο λέγομεν περὶ αὐτοῦ ὅτι ἐστὶ δίκαιος.”

<sup>100</sup> De Rijk (2002, 1: 311) points out that Ammonius treats the verb ‘to be’ in different ways in his commentary on *Peri hermeneias*, especially chapters three and ten (which I will explain soon).

<sup>101</sup> De Rijk (2002, 1: 224–234) gives a detailed analysis of this part of Ammonius’ commentary, to which I am partly indebted.

Ammonius has basically the same reading as Ackrill. He chooses 'not even' and takes 'to be and not to be' as the subject of sentence (3). Hence, sentence (3) reads: "for, not even 'to be' or 'not to be' is a sign of the thing." He maintains that this sentence (3) and sentence (4), "not if you say simply 'being,'" establish reasons for claiming (2): "but it does not yet signify whether it is or not," by making two '*a fortiori*' (ἀπο τοῦ μᾶλλον) arguments.

In developing his interpretation, Ammonius assumes that (i) "it is" signifies something true and "it is not" signifies something false<sup>102</sup> and that (ii) the infinitives 'to be' (εἶναι) and 'not to be' (μὴ εἶναι) are equivalent to 'is' (ἐστί) and 'is not' (οὐκ ἔστιν).<sup>103</sup> Then, (2) and (3) of Aristotle's text virtually state: (2<sup>Am</sup>) "a verb uttered alone does not signify truth or falsity"; (3<sup>Am</sup>) "not even 'is' or 'is not' is a sign of the thing."

(3<sup>Am</sup>) means that 'is' or 'is not' uttered by itself is not a sign of 'the thing' (τὸ πράγμα) that is to be signified by the verb, namely the fact (τὸ πρᾶγμα) that it exists or not.<sup>104</sup> Not indicating whether it exists or not (ὑπάρχειν ἢ μὴ ὑπάρχειν), 'is' or 'is not' by itself signifies no truth-value. Ammonius expresses this by saying that 'is' or 'is not' signifies neither something true nor something false even if it is repeated ten thousand times.<sup>105</sup>

(3<sup>Am</sup>) makes an '*a fortiori*' argument assuming that 'is' and 'is not' are the most primitive verbs (τὰ ἀρχοιδέστατα ῥημάτα). He thinks that this assumption holds because verbs other than 'is' (ἐστί) and 'is not' (οὐκ ἔστιν) are analyzed into a participle and 'is' or 'is not': definite verbs into the former and indefinite verbs into the latter.<sup>106</sup> For instance, "he runs" (τρέχει) and "he non-runs" (οὐτρέχει) are dissolved into "he is running" (τρέχων ἐστί) and "he is not running" (τρέχων οὐκ ἔστιν).<sup>107</sup> If even the most primitive verbs 'is' and 'is not' by themselves signify no truth-value, all other verbs by themselves cannot do so either (assuming (i)).

<sup>102</sup> In PH 55.12–13.

<sup>103</sup> In PH 55.23–24.

<sup>104</sup> The Greek word 'πράγμα' can mean a fact and a state of affairs as well as an individual thing just as its Latin counterpart 'res' can (see esp. p. 162, n. 66). For uses of 'πράγμα' in Greek philosophy, see Hadot 1980.

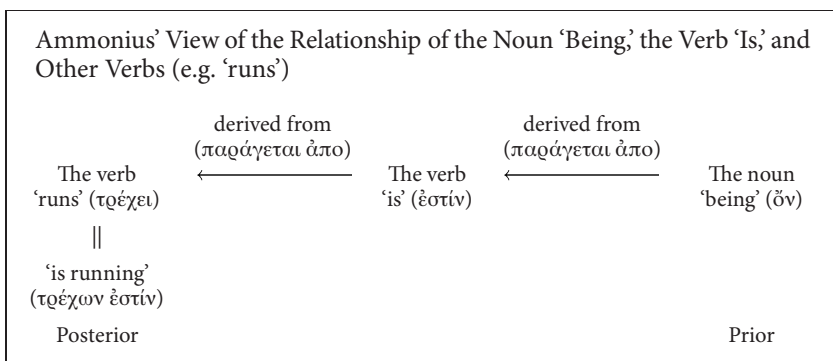
<sup>105</sup> In PH 55.31–56.2.

<sup>106</sup> Ammonius proposes the categories of definite and indefinite verbs just as Boethius does (see Chapter 4, § 3.3, pp. 135–136). Definite verbs are normal verbs and indefinite verbs are those which have the prefix 'non.'

<sup>107</sup> In PH 55.17–28.

Thus (3<sup>Am</sup>) “not even ‘is’ or ‘is not’ is a sign of the thing” supports (2<sup>Am</sup>): “a verb uttered by itself [in general] does not yet signify any truth-value.”<sup>108</sup>

(4) makes an *a fortiori* argument assuming that the noun ‘being’ (ὄν) is even prior to the primitive verbs ‘is’ and ‘is not.’ Ammonius thinks that this assumption holds because these verbs are derived from the noun ‘being.’ Even this noun is not a sign of the ‘thing/fact’ (τὸ πρᾶγμα), which means it does not “indicate that the thing [designated by the noun] truly is” (δηλωτικόν ἐστι τοῦ εἶναι ἀληθῶς τὸ πρᾶγμα).<sup>109</sup> He expresses this by saying that ‘being’ does not say whether a thing exists or not even if it is said repeatedly ten thousand times.<sup>110</sup> Not indicating whether a thing is or is not, ‘being’ by itself signifies no truth-value (assuming again (i)). Then much less do any verbs, which are directly or indirectly derived from the noun ‘being’—‘is’ is derived from ‘being’ directly while ‘runs’ is derived from it indirectly.<sup>111</sup> Thus (4<sup>Am</sup>) “it [i.e., ‘being’] does not signify any truth-value if you say simply ‘being’” supports (2<sup>Am</sup>): “a verb uttered by itself does not yet signify any truth-value.”



Ammonius introduces Porphyry’s interpretation of sentences (3) and (4) after his own interpretation of them. Porphyry chooses ‘not’ in place of ‘not even’ and takes ‘a verb uttered by itself’ as the subject of sentence (3). Thus sentence (3) reads: “a verb uttered by itself is not a sign of

<sup>108</sup> In PH 55.28–30.

<sup>109</sup> In PH 56.6–7.

<sup>110</sup> In PH 56.9.

<sup>111</sup> In PH 56.5 and In PH 57.4–6.

being or not being of the thing.”<sup>112</sup> That is to say, (3<sup>Po</sup>): “a verb uttered by itself does not signify whether the thing designated by the verb exists or not (ὑπάρχειν ἢ μὴ ὑπάρχειν).”<sup>113</sup> Thus, a verb uttered by itself does not establish any truth-value.<sup>114</sup> For instance, ‘walks’ (περιπατεῖ) does not signify whether an action of walking exists or not; ‘walks’ does not signify anything true or false unless a subject to which the action belongs is added to it.<sup>115</sup> Porphyry’s interpretation of sentence (3) reported here is similar to Boethius’ second reading of the same sentence (= [2]).

Although Porphyry interprets sentence (3) differently, Ammonius believes that Porphyry would share the same interpretation with respect to sentence (4). The sentence makes an ‘*a fortiori*’ argument because the verb ‘is,’ which is derived from the noun ‘being,’ is common to all verbs.<sup>116</sup> According to Ammonius, Porphyry infers (2<sup>Am</sup>) “a verb uttered by itself does not yet signify any truth-value” for the reason that (3<sup>Po</sup>) “a verb uttered by itself does not signify whether the thing designated by the verb exists or not”; even more so because (4<sup>Po</sup>) “it does not signify any truth-value if you say simply ‘being.’”

Ammonius’ interpretation of the remaining parts of the text [(5) and (6)] proceeds as follows. “For by itself it is nothing” [(5)] does not mean that the noun ‘being’ uttered by itself is meaningless (ἄσημον) or that it is predicated equivocally (ὁμωνύμως) of things.<sup>117</sup> This sentence [(5)] implies that the noun ‘being’ does not signify anything true or false.<sup>118</sup> “It co-signifies some composition (συμπλοκή)” [(6)] means that the noun ‘being’ signifies some composition when it is combined with something else. Note that similar to its Latin counterpart ‘*compositio*’ (as saw in §5.2), the Greek expression of ‘composition’ (συμπλοκή) can mean a result of composition, i.e., a composite, as well as an act

<sup>112</sup> In PH 56.16–17.

<sup>113</sup> In PH 56.23–24: “οὐ γὰρ ἐστὶ σημαντικὸν τὸ ῥῆμα καθ’ ἑαυτὸ λεγόμενον τοῦ ὑπάρχειν ἢ μὴ ὑπάρχειν τὸ ὑπ’ αὐτοῦ δηλούμενον πρᾶγμα.” For the meaning of ‘ὑπάρχειν,’ see Kahn 1972: 153: “Apart from this [Aristotle’s] technical use in logic and grammar, the most common meaning of ὑπάρχω in later Greek seems to be that which we render as ‘to exist’ or ‘to be real.’ (This occasionally leads to rather ludicrous confusion, when a later commentator can no longer distinguish between Aristotle’s technical sense and his own ordinary use of ὑπάρχειν.)”

<sup>114</sup> In PH 56.20–21; In PH 56.24–25.

<sup>115</sup> In PH 56.25–28.

<sup>116</sup> In PH 57.1–6.

<sup>117</sup> In PH 57.6–8. The second alternative would be the one reported as Alexander’s in Boethius’ second commentary (see Boethius’ text [4] on p. 205).

<sup>118</sup> In PH 57.8–9.

of composition. For instance, ‘being’ combined with ‘is’ signifies the composition “Being is.” We cannot understand anything without both components, i.e., ‘being’ and ‘is.’<sup>119</sup>

As for (5)–(6), Ammonius also mentions Alexander’s interpretation. Not criticizing Alexander, Ammonius seems to believe that his alternative is also philosophically convincing. Ammonius and Alexander differ on two issues: (i) the subjects of sentences (5), (6) and (ii) the meaning of ‘co-signify’ (προσημαίνειν) in sentence (6). As for the first point, Alexander maintains that ‘is’ (ἐστι) is the subject of these sentences while Ammonius argues that it is the noun ‘being.’ Thus Alexander (5) reads as (5<sup>Al</sup>): “the verb ‘is’ by itself is nothing” and (6) as (6<sup>Al</sup>): “the verb ‘is’ co-signifies some composition.” (5<sup>Al</sup>) means to say that the verb ‘is’ by itself signifies no truth-value.<sup>120</sup> In regard to the second point, Alexander takes the expression ‘co-signify’ in the second sense, that is ‘to signify indirectly,’ while Ammonius takes it in the first sense, viz., ‘to signify with some other words.’<sup>121</sup> The verb ‘is’ or ‘is not’ primarily signifies participation (μέθεξις) or deprivation (στερήσις) of being and signifies secondarily the composition (συμπλοκή) of a predicate with a subject.<sup>122</sup> The verb ‘is’ or ‘is not’ also makes up a sentence (λόγος) and signifies a truth-value.<sup>123</sup> According to this interpretation, the composition, which is indirectly signified by the verb ‘is,’ is the composition of a predicate to a subject.<sup>124</sup>

According to Ammonius’ report, Alexander also claims that ‘is’ or ‘is not’ potentially (δυνάμει) signifies the composition of ‘being’ or ‘non-being’ with the subject when “‘is’ is predicated immediately of the subject.”<sup>125</sup> In English, ‘is’ is usually predicated immediately after the subject, that is, it comes right after the subject. This is also the case in existential statements such as “Socrates *is*,” and in the sentence “Socrates is a philosopher.” Why, then, does Ammonius say that the former is predi-

<sup>119</sup> In PH 57.11–13.

<sup>120</sup> In PH 57.8.

<sup>121</sup> For the two senses of ‘co-signify,’ see Chapter 4, § 3.2, pp. 133–134.

<sup>122</sup> In PH 57.25–28: “[τοῦτο τὸ ἔστιν ἢ καὶ τὸ οὐκ ἔστιν] δύναμιν ἔχει προηγουμένως μὲν σημαντικὴν τῆς τοῦ ὄντος μεθέξεως ἢ στερήσεως, κατὰ δεύτερον δὲ λόγον καὶ κατηγορουμένου τινὸς πρὸς ὑποκείμενον συμπλοκῆς.”

<sup>123</sup> In PH 57.28–29.

<sup>124</sup> Cf. Alexander, In PrA 15.37–38: “προστιθέμενον μὲν σύνθεσιν σημαίνει τοῦ κατηγορουμένου καὶ τοῦ ὑποκειμένου καὶ ἔστι καταφάσεως δηλωτικόν.”

<sup>125</sup> In PH 57.29–31: “καὶ γὰρ ἂν ἀμέσως κατηγορηθῇ τοῦ ὑποκειμένου, καὶ τότε δυνάμει τὸ μὲν ἔστι συμπλοκὴν αὐτοῦ πρὸς τὸ ὄν σημαίνει, οἷον ‘Σωκράτης ὄν ἐστι,’ τὸ δὲ οὐκ ἔστι διαίρεσιν, ἢ καὶ ἀμφοτέρω σύνθεσιν.”



cated immediately but the latter is not? In Greek, 'is' can be put in several places but Ammonius is mainly thinking of Aristotle's discussion of *'tertium adiacens'*. In "Socrates is a philosopher," Ammonius would say that 'is' is not predicated immediately of 'Socrates' but predicated in addition to 'philosopher.' When 'is' is predicated immediately of the subject, such as in "Socrates is," the sentence is equivalent to "Socrates is a being," and thus 'is' in "Socrates is" *potentially* combines 'Socrates' with 'being.'<sup>126</sup>

Putting the metaphysical implications aside, we can track down the notion of the copula in Alexander's interpretation as reported by Ammonius. Alexander states that the verb 'is' in a sentence always signifies the joining of a predicate to a subject even though indirectly. His comment that "Socrates is" is not exempted from reduction to the form "S is P," "Socrates is being," makes him more vulnerable to the charge of creating two-name logic than Boethius is.

#### 5.4. Differences between Boethius and Ammonius

In comparing Boethius' and Ammonius' commentaries, I find striking dissimilarities between them:

(1) Ammonius takes the noun 'being' (ὄν) and the verb 'is' (ἐστί) to make two *a fortiori* arguments. Taking 'being' (ὄν) as a present participle of the verb 'to be,' Boethius translates 'being' as 'is' (*est*). According to Boethius' interpretation, Aristotle discusses the signification of a verb uttered by itself and that 'is' is just an example of a verb.

(2) Ammonius holds that the verb 'is' is prior to any other verb and the noun 'being' is even prior to the primitive verb 'is.' The relations of derivation from the noun 'being' (ὄν) to the verb 'is' (ἐστί) and from the verb 'is' to other verbs play crucial roles in Ammonius' exegesis, but Boethius never endorses such relationships. Ammonius' interpretation seems to be strongly influenced by Neoplatonic metaphysics,<sup>127</sup> for according to

<sup>126</sup> Alexander gives an explanation similar to this. Alexander, *In PrA* 15.17–21: "ἡ γὰρ λέγουσα πρότασις 'Σωκράτης ἔστιν' ἴσον δύναται τῇ 'Σωκράτης ὄν ἔστιν', ἐν ᾗ γίνεται τὸ ὄν μετὰ τοῦ 'ἐστί' ὁ κατηγορούμενος ὅρος, οὐ τὸ 'ἐστί'. ἐπεὶ δὲ τῷ ὄν τὸ 'ἐστί' ἴσον δοκεῖ δύνασθαι ἐγκαλεῖσθαι ἀπ' αὐτοῦ, συντομίας χάριν καὶ τοῦ μὴ ταῦτο λέγειν δοκεῖν μόνον συντάσσεται τῷ ὑποκειμένῳ."

<sup>127</sup> De Rijk (2002, 1: 235, n. 150) and Bäck (2000: 271) point out that the Neoplatonic metaphysics of transcendental forms and participation is behind the notion of the copula. The copula construct has a logical structure akin to the lore of participation: the subject participates in the predicate. For Ammonius' metaphysical view, see Verrycken 1990.

their emanation theory, everything obtains its existence from the One; the sources of emanation are causally prior to the products of emanation.<sup>128</sup>

(3) Boethius presents the two types of 'is' (*est*) that make up different types of composition. On the other hand, Ammonius does not classify 'is' at all.

(4) Boethius and Ammonius describe Alexander's interpretation differently. Boethius introduces him as an advocate for the equivocity of 'to be' and 'being.' Ammonius introduces him as a proponent of the copula. The variance arises either because (i) they have different sources of information about Alexander or because (ii) at least one of them purposely makes a false representation of Alexander. Having worked on their commentaries, I would choose the second possibility. Perhaps neither Ammonius nor Boethius possessed Alexander's commentaries.<sup>129</sup> They likely obtained information about Alexander from Porphyry's commentaries. Both Boethius and Ammonius seem to have possessed Porphyry's now lost commentary on *Peri hermeneias* because they frequently refer to the work. I agree with De Rijk's judgment that Ammonius is a disingenuous reporter of Alexander's interpretation.<sup>130</sup> Ammonius tends to appeal to other commentators so as to give his interpretations authority. He says that Porphyry, even though disagreeing on some details, ultimately consents to his interpretation. We cannot trust this remark once we read Boethius' description of Porphyry's interpretation. The following is my interpretation or conjecture of each commentator's view concerning the verb 'to be.'<sup>131</sup>

#### A) Porphyry-Boethius

'is' ("S is") by itself signifies *something* [i.e., the concept of being].

'is' ("S is P") by itself signifies nothing.

<sup>128</sup> See Plotinus, *Enneades* V 4.

<sup>129</sup> "When Ammonius cites commentators earlier than Porphyry, i.e. Alexander of Aphrodisias, Aspasius, Herminus, and the Stoics, he may be safely assumed to be citing them from Porphyry, given that he usually appends Porphyry's critique of each citation" (Blank 1996: 4); "That he [Boethius] owned copies of Andronicus (1st c. BC), Aspasius (ca. 100–150 AD), Herminus or Alexander is extremely unlikely" (Magee 1989: 4); But "Alexander's fame might just have induced Boethius to acquire a copy of his works so as to be able to check occasionally on Porphyry's information" (Ebbesen 2009b: 48).

<sup>130</sup> De Rijk 2002, 1: 229–233.

<sup>131</sup> For Alexander's real view, I rely upon Boethius' report and also upon Alexander's commentaries on *Metaphysics* and *Prior Analytics* (see notes 47, 71, 124 and 126 of this chapter). The square bracketed parts ([ ]) have little textual evidence. Further conjecture on Ammonius and Alexander is beyond the scope of this work.

- B) Ammonius  
'is' ("S is P"/"S is") by itself signifies *something* [i.e., the participation of being].
- C) (Inauthentic) Alexander in Ammonius' commentary  
'is' ("S is P"/"S is") by itself signifies *something*  
– primarily the participation of being.  
– secondarily the joining of the subject to the predicate.
- D) (Authentic) Alexander  
'is' ("S is P"/"S is") by itself signifies nothing.

Based on the results of this comparison, it is safe to maintain that Ammonius' commentary is *not* Boethius' major source and also that Ammonian-Boethian semantics is *not* the origin of the notion of the copula. Concerning the verb 'to be,' there are substantial differences between Ammonius and Boethius that make it impossible to subscribe to 'Ammonian-Boethian semantics.' Ammonius and Boethius formulate different arguments on many other issues, too.<sup>132</sup> As for similarities between them, we do not have to think that one stems from the other. Their common sources, which are most likely to be chiefly Porphyry's works, explain why they sometimes draw the same conclusions. If it were possible to substantiate the notion of 'Ammonian-Boethian semantics' based on these similarities, it would be more appropriate to name it 'Porphyrian semantics.'<sup>133</sup>

## 6. Conclusion

Unlike Ammonius, Boethius consistently argues for two different types of 'is'—(1) "S is" and (2) "S is P"—and never reduces one into another.<sup>134</sup> While the verb 'is' in "S is" is a 'term' and signifies *something* by itself, the verb 'is' in "S is P" is not a 'term' and signifies *nothing* by itself.

<sup>132</sup> Magee (1989: 54), Shiel (1990: 357–358) and Sorabji (1998: 17–18) note differences between their commentaries. Ebbesen (2009b: 48) flatly denies that Ammonius is a major source of Boethius' commentaries.

<sup>133</sup> This term is used as titles of section 3 of Ebbesen 1983 and chapter 2 of Lloyd 1990.

<sup>134</sup> Note that some sentences appear to take "S is P" form, but Boethius does not take them as such. In "Homer is a poet," he says, 'is' is predicated principally of a poet and secondarily of Homer (*In PH*<sup>1</sup> 164.28–165.18; *In PH*<sup>2</sup> 374.17–18; *In PH*<sup>2</sup> 374.24–25). This sentence appears to have 'Homer' as the subject and 'a poet' as the predicate, but he claims that it does not. Not holding that 'is' in this case is primarily predicated of 'Homer,' he takes Aristotle's suggestion in *PH*, ch. 11, 21a26–27.

This analysis validates the third definition (def. 3) of a ‘term,’ which I proposed in the previous chapter (§ 6.1): a spoken word signifying by itself. “X is not a term but is significative/signifies Y” is equivalent to “X does not signify by itself but signifies Y with some other expression.”<sup>135</sup> ‘Is’ in “S is P” signifies nothing by itself but with a subject term and a predicate term, signifies the quality of the proposition, which is affirmation. Quantifier-expressions such as ‘every,’ ‘none’ and ‘some’ do not signify by themselves but with some noun ‘X’ signify whether X is something particular or universal.

Conversely, Boethius’ application of the expression ‘term’ would lose coherency if he argued that ‘is’ in “S is P” signifies something by itself. I believe that Boethius has a definite notion of a ‘term’ although he defines it in a couple of different ways. Saving his coherency on this issue is another merit of my interpretation of his texts [1]–[9] in § 5.2.

The view that ‘is’ in “S is P” signifies nothing by itself may appear to endorse the copula, which is a connector of a subject-term to a predicate-term. Boethius, however, does not espouse this notion. He explicitly claims that this ‘is,’ which he calls *tertium adjacens*, is added next to a predicate. ‘Is’ is not ‘glue’ attachable to any linguistic items. Furthermore, he thinks that, when combined with a predicate-term (for instance, ‘white’), ‘is’ makes up a predicative part (as ‘is white’) and that a predicative part as a whole is combined with a subject. If we look at his statements carefully, we find that Boethius never states that the subject ‘a man’ and the predicate ‘an animal’ are coupled and combined by the verb ‘is.’ He states that ‘a man’ and ‘an animal’ are coupled and combined by the statement “A man is an animal.”<sup>136</sup>

Boethius’ claims (a) that the second type of ‘is’ is a sign of the quality of the proposition and (b) that this ‘is’ serves the function of ‘copulation’ are not irreconcilable with each other. In a ‘copulation,’ ‘is’ comes next to a predicate and signifies the quality of the proposition.

Thus we can hardly find the notion of the copula in Boethian semantics. On the other hand, it is possible to find the origin of this notion in Ammonian semantics. Ammonius does not straightforwardly support the notion of the copula because he is against it when he claims that the predicative part of “S is P” consists of ‘P’ and ‘is.’ He, however, states that the verb ‘to be’ is the primitive verb that all other verbs potentially

<sup>135</sup> Look back at Boethius’ texts in § 3, notes 24 and 28 of this chapter.

<sup>136</sup> See *In PH*<sup>1</sup> 65.25–66.4. This text is quoted in note 91 and translated on page 211.

contain. Thinking of 'is' as a special verb, he comes close to the notion of the copula, which segregates 'is' from other verbs in function. Moreover, Alexander's position in Ammonius' commentary comes closer to the notion of the copula. According to Ammonius, Alexander says that the verb 'is' by itself connotes the composition of a predicate with a subject, and, moreover, that 'is' as such a connector is found in every proposition.

Boethius considers 'is' as a full-fledged verb because any type of 'is' signifies time indirectly. Following Aristotle's statement in chapter 10 (19b13–14), he claims that the connotation of time is the criterion for any verb, including 'is':<sup>137</sup>

He [Aristotle] says, "'is,' 'will be,' 'was' or anything else that co-signifies time are verbs." We can learn [this] from what he has stated and granted before because he gave the definition of verbs [as this]: verbs are what co-signify time. Therefore, if these [words] co-signify time, there is no doubt that they are verbs.<sup>138</sup>

Moreover, a verb in the predicative part signifies the quality of a proposition irrespective of its form, "S is P"/"S is"/"S P"/"S is not P"/"S is not"/"S not P." Boethius says thus:

Hence, without a verb or without that which signifies the same as a verb either in implication (*subauditio*) or in some other way, neither an affirmation nor a negation can be produced.<sup>139</sup>

He probably means a verb in the present tense, a verb in the past or future tense, and an indefinite verb in referring to 'a verb,' 'that which

<sup>137</sup> This criterion may pose a question concerning the function of 'is' in "God is": Is this 'is' logically a verb? For Boethius (*In PH*<sup>2</sup> 51.7–10) says that this sentence does not mean that God exists now but that God consists of a substance (*in substantia esse*); this 'is' is related to the immutability of the substance rather than to some time. But it is possible to claim that this 'is' is also a verb logically, saying that it connotes time somehow insofar as God always exists unchangeably. Cf. *De trinitate* § 4, 176.262–177.265: "Item cum dico 'currit' vel 'regit' vel 'nunc est' vel 'semper est', refertur quidem vel ad facere vel ad tempus (si tamen interim divinum illud 'semper' 'tempus' dici potest)."

<sup>138</sup> *In PH*<sup>2</sup> 260.9–15 (single quotation marks added): "'Est' enim, inquit, vel 'erit' vel 'fuit' [Meiser add.: vel fit], vel quaecumque alia consignant tempus, verba sunt, sicut ex his doceri possumus quae ante posita sunt atque concessa, cum definitio verborum daretur: verba esse quae consignerent tempus. Quare si haec consignant tempus, non est dubium quin verba sint." Meiser inserts 'vel fit' so as to be a literal translation of Aristotle's text (19b13–14).

<sup>139</sup> *In PH*<sup>2</sup> 260.4–7: "[U]t autem praeter verbum sit ulla affirmatio aut negatio aut praeter id quod idem significet verbo vel in subauditione vel in aliquo alio modo fieri non potest." Aristotle says that there is no affirmation and negation without a verb (*PH*, ch. 10, 19b12), and Boethius follows this principle.

signifies the same as a verb in implication' and 'some other way.'<sup>140</sup> They indicate that the sentence is an affirmation. For instance, the verb 'runs' and the indefinite verb 'non-runs' in "Socrates runs" and "Socrates non-runs," signify that these sentences are affirmations. A verb with a negative adverb indicates that the sentence is a negation. For instance, 'does not run' (*non currit*) in "Socrates does not run" indicates that this sentence is a negation.

Furthermore, the verb 'is' is not distinct from other verbs by having the function of a conjunction. Based on Boethius' statements scattered in his second commentary, it is possible to claim that every verb is a conjunction or has the function of a conjunction by virtue of the verb 'to be.' As is described in Chapter 4 (§ 4), Boethius determines a logical conjunction by 'the force of a proposition' (*vis propositionis*), that is, the function of specifying the truth-conditions. He says that a verb (e.g., 'is,' 'walks') has this function in simple propositions whereas a conjunction ('if,' 'or,' 'and') has this function in some composite propositions.<sup>141</sup> And he once claims that semantic truth and falsity are engendered in a composition and a division involving 'to be.'<sup>142</sup> This type of composition and division, which establishes a truth-value, is expressed not only in sentences such as "Socrates *is*" and "Socrates *is* walking" but also in "Socrates walks." Although we cannot see or hear the verb 'to be' in the sentence "Socrates walks," the composition 'Socrates' and 'walks' in this sentence involves it because this sentence is logically equivalent to "Socrates *is* walking." In fact, he said on one occasion "'to be' or the verbs that contain the verb 'to be'"<sup>143</sup> as if to say that verbs other than the verb 'to be' contain it as well.

The upshot of this consideration is that Boethius' logic ultimately depends upon two logico-grammatical categories: the noun and the conjunction. What we have called 'verbs' and 'logical conjunctions' are, in fact, sub-species of the conjunction broadly construed. A 'verb' as a predicate combines a subject with itself and completes a proposition. A 'logical conjunction' ('if,' 'or,' 'and') virtually combines two propositions and produces a proposition.

<sup>140</sup> See Chapter 4, § 3.3. As I explained, the term 'verb,' strictly speaking, means a verb in the present tense.

<sup>141</sup> In *PH*<sup>2</sup> 105.4–12 (text (b) in Chapter 4, § 4). The 'some' belong to (b-i) and (d-i) groups in Chapter 5, § 7, p. 179.

<sup>142</sup> In *PH*<sup>2</sup> 49.27–32 (the text in note 90 of Chapter 1, § 4.3).

<sup>143</sup> In *PH*<sup>2</sup> 405.30–31 (part of text (e) in Chapter 4, § 4, p. 144).

## CHAPTER SEVEN

### GENERAL CONCLUSIONS

In this work, I have discussed some of the important issues in Boethius' translation of and commentaries on *Peri hermeneias*. I have aimed at presenting better interpretations than those of past interpreters such as Kretzmann, Magee or De Rijk. My focus has been primarily upon philosophical problems. I have often briefly touched on the historical background surrounding Boethius' works in the main texts or pointed them out in the footnotes so that they would not interrupt my main arguments. The purpose of this short chapter is to review my interpretations of Boethius' semantics and logic from philosophical as well as historical perspectives. Through this review, I will show the connections between matters discussed in separate parts of this work, both in the main text and in the footnotes. The ultimate meaning of mental nouns and mental verbs, the question I have postponed since Chapter 3, is revealed only through some of those connections.

In the Introduction, I pointed out that Boethius' arguments about logic in his commentaries on *Peri hermeneias* have two characteristics: (i) Boethius furnishes a psychological explanation of language, taking spoken words as expressions of thoughts in the mind; (ii) he strongly relies on the grammatical categories of noun and verb. These two features can be taken as serious weaknesses in Boethius' logic from a modern perspective. Philosophers might criticize Boethius by saying that he considers the meanings of words to be private and that he conflates logic with grammar. Before discussing how Boethius would respond to these criticisms, I would like to review and summarize some salient features of his semantics and logic, many of which are observed only in his second commentary on *Peri hermeneias* (§ 1).<sup>1</sup> Next I will complete my explanation of mental nouns and mental verbs, including my arguments in Chapter 4 on nouns and verbs (§ 2). After this discussion, I will consider how Boethius has changed the history of semantics and logic by his psychological and grammatical explanations of language (§ 3).

---

<sup>1</sup> For a summary of Boethius' semantics from a perspective different from mine, see Martin 2010: 176–187. He discusses seven points, some of which overlap with mine.

### 1. Some Significant Features of Boethius' Semantics and Logic

(1) Boethius articulates the signification of spoken words through the triad of spoken words (*voces*), thoughts (*intellectus*) and things (*res*). He claims that spoken words signify principally thoughts and secondarily things by the mediation of thoughts (BoST<sub>1</sub>).<sup>2</sup> This sort of explanation is standard for Greek Aristotelian commentators and was adopted by many thinkers in the Middle Ages and the modern era.<sup>3</sup> Boethius was the first to formulate this well-known thesis in Latin.

(2) It should be noted, however, that he also claims that spoken words signify only thoughts. By this claim, he suggests a one-stage (sense = referent) view rather than a two-stage (sense → referent) view of signification. The one-stage view implies that to signify thoughts is the same act as to signify things (BoSP<sub>1</sub>).<sup>4</sup>

(3) Boethius considers the signification of spoken words as a phase of linguistic communication.<sup>5</sup> In explaining 'the order of speaking,' he introduces two standpoints, i.e., that of the listener and that of the speaker. A speaker conceives thoughts from things and signifies thoughts by means of spoken words. A listener listens to spoken words, conceives thoughts, and understands things.<sup>6</sup> Like many other ancient thinkers,<sup>7</sup> Boethius says that we use words in order to convey our thoughts to other people.<sup>8</sup> Thus he considers words and their signification intersubjectively.

(4) Boethius divides items involved in linguistic activity ('*ordo orandi*') into those established by nature and those that presuppose conventional agreement. In his view, things and thoughts are established by nature, while spoken and written words are established by convention ('*ad pla-*

<sup>2</sup> See Chapter 1, § 4.2, esp. p. 32.

<sup>3</sup> See Chapter 1, note 72. This is not the only type of explanation given throughout the Middle Ages. Later in the Middle Ages there emerged another type of explanation: spoken words directly signify things ('direct reference theory'). Prominent supporters of this second type of explanation are Roger Bacon and William of Ockham.

<sup>4</sup> See Chapter 1, § 4 sqq., esp. p. 37.

<sup>5</sup> Not enough attention has been paid to this aspect of his theory of signification. Cameron (2009: 90) rightly pays attention to this aspect.

<sup>6</sup> See Chapter 3, § 4.4.

<sup>7</sup> Calcidius' Latin translation of Plato's *Timaeus* (47c); Augustine, *Enchiridion* VII [22], 62.73–76; Ammonius, *In PH* 18.30–33. It should be noted that all these thinkers are influenced by Porphyry.

<sup>8</sup> *In PH*<sup>2</sup> 13.6–7; *In PH*<sup>2</sup> 34.7; *In Isag*<sup>2</sup> 144.15–16.



*citum*').<sup>9</sup> The 'nature vs. convention' distinction leads later in the Middle Ages to the idea of concepts as natural signs contrasted with words as conventional signs. Words, which are *significantes*, are established by convention (BoST<sub>2</sub>), while their *significata*, that is, thoughts and things, are established by nature. The fact that the *significata* of words are established by nature assures the objectivity of the meanings of words. It is possible that each of us shares the same thoughts of the same things.

(5) While maintaining the conventionality of language, Boethius also recognizes its natural aspects. Linguistic activity ('*ordo orandi*') depends upon the order of nature ('*ordinatio naturae*'), i.e., an order of causation that starts from things and ends at written words.<sup>10</sup> In general, the *significatum* is the cause of the *significans* (BoSP<sub>2</sub>).<sup>11</sup> Thoughts are the causes of spoken words, and therefore, spoken words signify thoughts. Boethius suggests that we have a natural capacity to speak languages. That is to say, we are endowed with physical organs and mental abilities to produce articulate vocal sounds and to assign particular articulated vocal sounds to particular things as their names.<sup>12</sup> Moreover, we have the ability to compose sentences from single words and to express something true and something false. This is because we can combine and separate different concepts (*intellectus*), i.e., mental nouns and mental verbs, in our mind.<sup>13</sup>

(6) Boethius pays remarkable attention to the forms (*figurae*) of words in natural languages. He states that philosophers should pay attention to the signification of words while grammarians should focus on the form of words.<sup>14</sup> He, however, does not ignore the form of words. He recommends that philosophers look at significations under the forms or at the intelligible contents of words under their perceptible contents.<sup>15</sup>

(7) Another aspect of this point [(6)] is that Boethius' logic tends toward non-reductionism. By reduction, I mean the reduction or transformation of propositions using the grammar of natural language into those using the grammar of logic. He does not transform "Jupiter and

<sup>9</sup> For this interpretation of '*ad placitum*,' see Chapter 2, § 3.5, esp. p. 69.

<sup>10</sup> See Chapter 3, § 4.2.

<sup>11</sup> See Chapter 3, § 4.3, esp. pp. 101–103.

<sup>12</sup> See Chapter 2, § 3.6, p. 73.

<sup>13</sup> See Chapter 1, § 4.3, p. 35, Chapter 2, § 3.6, p. 72 and Chapter 3, § 3.4, pp. 93–94.

<sup>14</sup> See Chapter 4, § 2.3.

<sup>15</sup> Cf. Ebbesen 1987: 305 = repr., 388: "He [Boethius] does however, in his *Introduction to the Categorical Syllogisms*, tell his readers not to think that in teaching them logic and

Apollo are gods” into “Jupiter is a god and Apollo is a god” although he would acknowledge that these two propositions are semantically equivalent. He calls the former ‘a multiple composite proposition of terms’ while the latter type of proposition is ‘a multiple composite proposition of propositions.’<sup>16</sup> Moreover, he does not reduce “He runs” and “He is/exists” into “He is running” and “He is a being” although he would acknowledge that these propositions are semantically equivalent.<sup>17</sup>

## 2. Boethius on Mind, Grammar, and Logic

Those features mentioned above (§ 1) furnish a defense for Boethius’ approach to semantics and logic, (1) to (5) espousing his psychological explanation of language and (6) and (7) supporting his grammatical explanation of language.

It is not mere coincidence that Boethius’ logical works have a psychological explanation of language as well as a grammatical analysis of language. He would agree with Frege, who recognized a connection between psychological and grammatical elements in natural languages (although Frege also thought that this psychological contamination prevented a universal grammar).<sup>18</sup> For Boethius, the explanation of language should be both psychological *and* grammatical. He maintains that spoken words (*voces*) are marks (*notae*) of thoughts (*intellectus*) in the mind.<sup>19</sup> In order to understand language, it is necessary for us to consider thoughts. If we look at thoughts, he says, there are, so to speak, nouns and verbs in a universal mental language.<sup>20</sup> Thus, to explain language psychologically requires analysis of it grammatically at least with respect to the categories of noun and verb. Derived from a universal mental language, the categories of noun and verb are the same in different natural languages. Contrary to Frege’s position, admixture with psychological elements does not necessarily diversify grammars.<sup>21</sup>

---

its way of dealing with language he wants them to unlearn the grammar they were taught at school. What the reader is invited to do is to consider the same matter from a new angle which gives a profounder understanding.”

<sup>16</sup> See Chapter 5, § 7, esp. pp. 180–181.

<sup>17</sup> See Chapter 6, §§ 3–4 and § 5.2.

<sup>18</sup> See the Introduction.

<sup>19</sup> See Chapter 2.

<sup>20</sup> See Chapter 3, §§ 1–3.

<sup>21</sup> Recall the quotation from Frege on page 10.

The psychological aspect of language does not necessarily imply subjectivity. Boethius holds that spoken words are expressions of thoughts in the mind, but he does not believe that spoken words are explained away by psychological phenomena. The content of signification is a thought in the mind, but the thought is determined by thing(s) in the world in such a way that the thought does not exist unless it is caused by some thing(s) in the world. Thoughts of a non-existent thing, such as a goat-stag, appear to be the exception to this principle. It is true that nothing in the world solely causes such a thought, but there are some *things in the world* that together cause the thought, i.e., the actual existence of a goat and a stag in the case of the example above.<sup>22</sup> To summarize, spoken words depend upon thoughts, but thoughts depend upon things in the world, and, therefore, spoken words depend upon things in the world.<sup>23</sup> Thus, the language we use is anchored in the world. In short, Boethius is a semantic externalist.

Having the same thing as its cause, a thought of the same thing is the same for all. A thought about a horse, that it is a horse, is the same for the Greek, the Roman, and the Jew, despite the fact that each uses a different word to refer to the horse.<sup>24</sup> One's thought can be the same as another's.<sup>25</sup> In explaining the notion of 'sense' (*Sinn*), Frege compares the moon to a 'reference' (*Bedeutung*) while he compares the real image projected by the object glass in the interior of the telescope to a 'sense' (*Sinn*). Frege states that the optical image in the telescope is objective despite its being dependent upon the standpoint of observation.<sup>26</sup> To draw upon Frege's analogy, a thought (*intellectus*) in the mind resembles the real image in the telescope rather than the retinal image of the observer. A thought in the mind, which is of course *someone's* mind, is *not* something private and subjective.

It is true that Boethius discusses logic using the grammatical distinctions of our natural languages: noun, verb and conjunction. He does not, however, confuse logic with grammar. He holds that logicians should name 'noun,' 'verb,' and 'conjunction' by virtue of signification, not by virtue of 'forms' of words, i.e., phonetic shapes;<sup>27</sup> not everything that we

<sup>22</sup> See Chapter 3, § 4.3, pp. 104–105.

<sup>23</sup> See Chapter 3, § 4.3.

<sup>24</sup> See Chapter 3, § 3.1, eps. pp. 81–82.

<sup>25</sup> Cf. Frege, "On *Sinn* and *Bedeutung*," in Beaney 154 [29]: "The idea is subjective: one man's idea is not that of another."

<sup>26</sup> Frege, "On *Sinn* and *Bedeutung*," in Beaney 155 [30].

<sup>27</sup> See Chapter 4, § 2.3.

call 'noun' 'verb' and 'conjunction' should be treated as such in logic. We may say that the block of non-meaningful sounds, '*garalus*', is a noun, particularly when it appears in a sentence such as "*garalus currit*." Boethius does not agree with this in logic insofar as the block of sounds signifies nothing.<sup>28</sup> We say that 'and' in a phrase such as 'Socrates and Plato' is a conjunction. Boethius does not adopt this custom in logic insofar as 'and' does not affect the truth-value of a proposition. If 'and' affects the truth-value of a proposition as in the sentence "Socrates and Plato dispute," logicians should treat it as a conjunction. The criterion of 'logical conjunction' is 'the force of a proposition' in his expression, which is the function of specifying the truth-conditions of a proposition.<sup>29</sup>

His clear demarcation between grammar and logic is also observed in his discussion on the unity of propositions. Grammatically speaking, we would say that each of the following examples is a single sentence: (i) "Socrates is a musical white man." (ii) "A man is a rational mortal animal." (iii) "If it is day, it is light." (iv) "If it is light, it is day." Boethius, however, regards only two of them [(ii) and (iii)] as single sentences from a logical perspective because only these two signify single facts.<sup>30</sup>

Boethius holds that nouns and verbs in logic reflect two types of function in the human mind that conceptualizes things in the world. Moreover, according to him, the noun-verb distinction is not a 'frame of the mind' imposed on the world of experience. The criterion of a noun-verb distinction is in its extra-mental properties. A verb is a linguistic unit that signifies an action or a passion inhering in something at a particular time.<sup>31</sup> Accordingly, a 'mental verb' is a thought that conceptualizes an action or a passion inhering in something while a 'mental noun' is a thought that conceptualizes a thing in which an action or a passion inheres. Hence, there is no noun-verb distinction without actions or passions in reality causing thoughts of actions or passions, i.e., 'mental verbs.' Thus the noun-verb distinction is grounded in the fact that actions, passions and the substances in which they inhere really exist in the world. It is also supported by the fact that the mind conceives the reality of the different things correspondingly.<sup>32</sup> Conversely,

<sup>28</sup> See Chapter 4, § 2.3, esp. p. 129.

<sup>29</sup> See Chapter 4, § 4.

<sup>30</sup> See Chapter 5, § 5.

<sup>31</sup> See Chapter 4, § 3.2.

<sup>32</sup> So-called 'Modists' later developed a similar idea. They claimed that not only the noun and the verb but also other traditional grammatical categories ('*modi significandi*') reflect our different ways of thinking ('*modi intelligendi*') and these different ways cor-

the ten categories of being, which include categories of substance, action and passion, cannot be described without nouns and verbs.<sup>33</sup>

The verb 'to be,' which for many contemporary philosophers has a completely different function than other verbs, is also accommodated in Boethius' logical analysis of noun, verb and conjunction.<sup>34</sup> According to his explanation, the verb 'to be' is never a copula but rather is a full-fledged verb. Since it connotes time, 'is' satisfies the definition of a verb. The verb 'to be' is also legitimately called 'a conjunction' insofar as it combines two linguistic units and specifies the truth-conditions of a proposition. In fact, every verb is a 'conjunction' if it is assumed that the criterion of a conjunction in logic is that it specifies the truth-conditions of a proposition. Thus Boethius' logic is *not* a 'two-term logic,' i.e., a logical analysis of subject, predicate and copula, which Frege and Russell had in mind when they attacked classical logic. It is ironic that they attacked the subject-predicate logic as being 'grammatical.' Having its pedigree in logic, the subject-predicate was originally a 'logical' distinction, not a 'grammatical' distinction.<sup>35</sup>

Boethius is aware of the fact that grammatical distinctions, if they are taken simply as they are by grammarians, would create difficulties in logic. Furthermore, he cannot help but say that his uses of the terms 'noun' 'verb' and 'conjunction' are equivocal.<sup>36</sup> His uses of 'conjunction' are the most obvious examples of this equivocity. 'And' in "Plato and Aristotle" is a 'conjunction' grammatically, not logically.<sup>37</sup> The conjunction 'if' in "If it is day, it is light" is a 'conjunction' logically as well as grammatically. The verb 'to be,' and in fact any verb, is a 'conjunction' logically.<sup>38</sup> This equivocity may cause troubles for his logic. Boethius, however, never attempts to invent an ideal logical language free from any divergences

---

respond to the ways in which things exist in the world ('*modi essendi*'). For Modism in general, see Rosier 1983 and Pinborg 1985. Magee (1989: 48) points out the relevance of Boethius' semantic doctrine to Modism. Rosier (1995: 137) says that Boethius' use of '*consignificare*' for signifying something indirectly, is one of the sources of the notion of '*modus significandi*.' Arens (1984: 15) regards Modism as the first flowering of Aristotle's linguistic theory resulting from the interaction between logical and grammatical traditions.

<sup>33</sup> In *PH*<sup>2</sup> 7.12–18 (in text (i) on pp. 22–23 in Chapter 1, § 3).

<sup>34</sup> See Chapter 6.

<sup>35</sup> Barnes (2007: 93) reminds me of this fact.

<sup>36</sup> See Chapter 4, §§ 3.4–4 and Chapter 6, § 6.

<sup>37</sup> See Chapter 4, § 4.

<sup>38</sup> See Chapter 6, § 6., esp. p. 222 Boethius introduces the claim that the verb 'to be' is a conjunction as Porphyry's interpretation. With respect to other verbs, he remains silent, but their status as conjunctions can be inferred from his notion of a logical conjunction.

between verbal appearances and their logical functions—between ‘forms’ (*figurae*) and ‘forces’ (*vires*), to use his expressions. Instead he carefully examines the linguistic properties of natural languages and discriminates between what is relevant to logic and what is not.<sup>39</sup>

What is relevant to logic are linguistic items that have essential connections with semantic truth and falsity.<sup>40</sup> Boethius claims that the subject of logic is the declarative sentence, i.e., a sentence signifying a truth-value.<sup>41</sup> Although the truth-values of declarative sentences are derived from the truth-values produced in the composition of thoughts, ultimately these truth-values are determined by facts in the extramental world, not by our conceptual analyses. “Socrates is walking” is true when Socrates is walking and false when he is not.<sup>42</sup> For Boethius, logic is a study of the properties of extramental natural languages used for commenting on the extramental world.<sup>43</sup>

Natural languages are also used for describing our mental world. However, those entities that have their existence only in the mental world (e.g., chimeras) are only secondary concerns in his logic because references to them are not the primary purpose of language. This is why Boethius’ principles of signification make exceptions for those fictional beings. Names of these fictional entities (‘empty names’) signify thoughts but not things so his first semantic principle (BoSP<sub>1</sub>)—to signify thoughts is the same act as to signify things—does not hold for them.<sup>44</sup> Thoughts of these fictional beings ultimately have their causes in things (insofar as they are compiled from things), and therefore, their names have their indirect causes of signification in things. Names of those fictional beings, however, do not signify things at all. Thus Boethius’ second semantic principle (BoSP<sub>2</sub>), which states that a cause of signification is the *significatum*, does not hold perfectly for them, either.<sup>45</sup>

<sup>39</sup> See Chapter 4, § 5 and Chapter 5, § 9.

<sup>40</sup> For his different concepts of truth and falsity, see Chapter 1, § 4.3.

<sup>41</sup> See Chapter 5, § 3.

<sup>42</sup> See Chapter 1, § 4.3.

<sup>43</sup> Not all medieval thinkers support this view. In the 13th century, more people held the view that the subject of logic is ‘intentions’ (*intentiones*), i.e., concepts. E.g., Thomas Aquinas, *In de trinitate*, q.6, a.3, c., 168.145–150: “Logicus enim considerat absolute intentiones, secundum quas nichil prohibet conuenire immaterialia materialibus et incorruptibilia corruptibilibus; set naturalis et philosophus primus considerant essentias secundum quod habent esse in rebus.” For different views on the subject of logic in the later Middle Ages, see Pinborg 1975: 59–69.

<sup>44</sup> See Chapter 1, § 4 sqq., esp. p. 37.

<sup>45</sup> See Chapter 3, § 4.3, esp. p. 101.

### 3. Boethius on Aristotle, the Stoics, and Neoplatonists

Many readers of this book are likely to be interested not only in the above philosophical problems, but also in Boethius' role in the history of ideas. How did Boethius change the history of semantics and logic with his translations and commentaries on *Peri hermeneias* or his psychological and grammatical explanations of language? There have not been many commentators on Boethius' logic, but it has been mainly Boethius' historical significance that has motivated the few to comment on his works. I have demonstrated that those past studies of Boethius' logic tend to attribute misinterpretations of Aristotle to Boethius. They often imagine that the Stoics and the Neoplatonists are the causes of Boethius' misinterpretations.

Aristotle does not use 'to signify' (σημαίνειν) technically as connoting 'sense' as distinct from 'reference.' Neither does Boethius use 'to signify' (*significare*) in this manner.<sup>46</sup> Boethius' translation of *Peri hermeneias*, including its beginning, is quite accurate. He translates both 'σύμβολον' and 'σημεῖον' as 'nota' but rightly understands the conventionality of language and the parallel between spoken words and thoughts in Aristotle's text. He chooses the Latin word 'nota' with which he can convey these two aspects of language.<sup>47</sup> By 'speech in the mind' (*oratio mente*), he means little more than 'the affections of the soul' in Aristotle's *Peri hermeneias*. Aristotle says that 'the affections of the soul' are the same for all people. Boethius' 'speech in the mind,' which is a composite of thoughts (*intellectus*), is also common to all people irrespective of the fact that they speak different languages.<sup>48</sup> He holds that 'terms,' that is nouns and verbs, are the most basic elements of his logic, which follows Aristotle's discussion in *Peri hermeneias* and *Prior Analytics*.<sup>49</sup> We find the notion of a copula neither in Aristotle's works, nor in any of Boethius' discussions on the verb 'to be.'<sup>50</sup> Thus, in general, Boethius does not misconstrue Aristotle to the extent that the scholars have claimed that he does.

I would not, however, claim that the Stoics and the Neoplatonists did not influence him at all. In fact, Stoic influences are ubiquitous in

<sup>46</sup> Pace Kretzmann. See Chapter 1, § 3.

<sup>47</sup> See Chapter 2.

<sup>48</sup> Pace Magee. See Chapter 3, §§ 1–3.

<sup>49</sup> See Chapter 5, §§ 6–7.

<sup>50</sup> Pace De Rijk. See Chapter 6.



Boethius' works. His classifications and definitions of different types of sentences and phrases (*orationes*),<sup>51</sup> his attention to the forms (*figurae*) of vocal sounds,<sup>52</sup> his notion of conjunction (*coniunctio*),<sup>53</sup> and his account of sensation, imagination and thoughts as imprints (*impressiones*) of the forms (*formae*) of things<sup>54</sup>—in all these instances, we can trace Stoic influences. Even though he denounces the Stoics, as well as the Epicureans, for what he sees as serious mistakes on their part,<sup>55</sup> he does, however, employ quite a few terms of Stoic provenance. He perhaps uses many of these terms without knowing that they came from the Stoics, since his only direct source of the Stoics is probably the works of Seneca. However, indirect sources include the Greek Aristotelian commentators and some Latin writers (especially Cicero). These authors had already incorporated Stoic notions into their writings without mentioning their roots.<sup>56</sup> In their reception of Stoic ideas, they often modify the original Stoic content. They critically adopt the Stoics' account of perception and imagination as imprints (τύποι) on the mind,<sup>57</sup> emphasizing the spontaneity of the mind. They transform the Stoic classification and definitions of the sayable (λεκτόν) and the axiom (ἀξιωμα) into their own classifications and definitions of speech (λόγος/*oratio*) and of the proposition (πρότασις/*propositio*) or enunciation (ἀπόφανσις/*enuntiatio*).<sup>58</sup> They follow the Stoics' attention to the form (σχῆμα/*figura*) of a spoken word (λέξις/*locutio*) while disagreeing with the Stoic definition of a vocal sound (φωνή/*vox*).<sup>59</sup> They incorporate the Stoic notion of consequence (ἀκολουθία/*consequentia*) into their accounts of topics and syllogisms

<sup>51</sup> See Chapter 5, §§ 2–3.

<sup>52</sup> See Chapter 4, § 5 and Chapter 5, § 9, and above § 1 (6) and (7).

<sup>53</sup> See Chapter 4, § 4.

<sup>54</sup> See Chapter 3, § 5, especially n. 124 and n. 131.

<sup>55</sup> *CP* I, pr. iii (the Stoics and the Epicurians); *In Isag.*<sup>2</sup> 138.4–17 (Epicurus).

<sup>56</sup> How each thinker incorporated Stoic elements is a matter of dispute. The Stoic influence on Porphyry is especially controversial (see Barnes 2003: 312–317). For the relationship between Alexander of Aphrodisas and the Stoics, see Todd 1976a: 21–29. For the relationship between Cicero and the Stoics, see Powell 1995a: 23–26.

<sup>57</sup> For such an example, see Ammonius, *In PH* 6.9. The adaptation is already observed in Plotinus, *Enneades* III 6, 1.7–11 (Cf. Graeser 1972: 24–25).

<sup>58</sup> Nuchelmans 1973: 102: “There are many signs that the awareness of this difference [i.e., the difference between λεκτόν and λόγος] gradually disappeared.” Ammonius (*In PH* 2.26–3.6) identifies the Stoics' axiom with a declarative sentence. See also Cicero's definition of a proposition in Chapter 1, n. 6.

<sup>59</sup> For their definition of a vocal sound, see p. 9 (n. 39) in the Introduction, § 4.



but do not accept the Stoic notion of sign (σημεῖον/*signum*).<sup>60</sup> Generally speaking, logico-grammatical notions in Boethius' logic are likely to have their origins in the Stoics in the event that these notions are not present in Aristotle's works.

In contrast with the Stoic elements, Neoplatonic elements are present to a lesser extent in Boethius' commentaries. Reading his *Consolation of Philosophy* and "*Quomodo substantiae in eo quod bonae sint cum non sint substantialia bona*," i.e., *De hebdomadibus*, one is likely to expect that Boethius developed Neoplatonic interpretations of Aristotle, relying heavily upon the Neoplatonic notion of 'participation.' However, one's expectation will not be fulfilled as Boethius uses the expression 'participation' only once in the commentaries on *Peri hermeneias*: 'Is' in "Socrates is a philosopher" is a conjunction according to 'participation' because this sentence indicates that Socrates participates in philosophy.<sup>61</sup> The Neoplatonic metaphysics of participation can hardly be found in this explanation although it remains possible that such a metaphysics lies behind this text. Boethius is cautious about the divisions and orders of different disciplines. I explained earlier how he neatly differentiates logic from grammar while seeing the continuity between them.<sup>62</sup> The same holds for the relationship between logic and metaphysics and other disciplines.<sup>63</sup> In his logical works, he eschews delving deeply into metaphysical issues insofar as they are not primary subjects of logic.<sup>64</sup>

There are yet more obvious Neoplatonic elements in his commentaries. Some aspects of his psychological explanation of language are influenced by Neoplatonists. Neoplatonists stress that the mind acts on our experiences rather than being simply subject to physical changes in the world. Boethius' explanation of the signification of empty names follows

<sup>60</sup> See Sextus Empiricus *Adv. math.* VIII 276 = SVF II 223 = LS 53T = FDS 529 (cited on pp. 164–165 in note 79 of Chapter 5). For the Stoic notion of sign, see Verbeke 1978 and Manetti 1993: ch. 6.

<sup>61</sup> *In PH*<sup>2</sup> 77.13–23 (see Chapter 6, § 5.2, Boethius' text [5], p. 206).

<sup>62</sup> For a further analysis of the continuity between grammar and logic in Boethius, see Ebbesen 2003. He sees Pythagoreanism behind this continuity (Ebbesen 2008: 112–113 and 2009b: 50–51) and provides some textual evidence of Pythagoreanism in Boethius (Ebbesen 1987: 306–307, n. 58= repr., 389–390, n. 58). For discussion of the influence of Pythagoras and Pythagoreanism in antiquity and the Middle Ages, see O'Meara 1989, Centrone 1996, Kahn 2001, and Joost-Gaugier 2006 (especially 62–64 on Boethius).

<sup>63</sup> For logic and rhetoric, see *In PH*<sup>2</sup> 344.5–345.7. For arithmetic, geometry, music and astronomy (i.e., four disciplines of '*quadrivium*'), see *De arith.*I. § 1, 9–12, 10.39–14.30. For physics, mathematics and metaphysics, see *De trinitate* § 2, 168.68 sqq.

<sup>64</sup> Pace Cameron 2009: 104, n. 23.

somewhat in this direction. A name can signify a thought which is ‘created’ by the mind and thus does not have a subject thing in the extra-mental world.<sup>65</sup> Furthermore, Neoplatonists endorse the idea that mental speech is causally and naturally prior to spoken speech.<sup>66</sup> We can see traces of this idea in Boethius’ claims that thoughts are causes of spoken words and that the noun-verb distinction and truth-values are originally found in the mind.<sup>67</sup> In addition, Boethius compares our process of cognition with painting. Sensation and imagination are confused and imperfect, and they are similar to drawing a sketch in blank and white.<sup>68</sup> John Magee rightly points out that “it [i.e., *imaginatio*] is characterized as a visual rather than a linguistic medium.”<sup>69</sup> Moreover, Boethius says that understanding (*intellectus*) is clear and perfect, comparing the act of understanding with coloring in the sketch.<sup>70</sup> Given this graphic explanation of our cognitive process, Boethius stops short of saying that spoken words signify ‘mental pictures’ and thus stops short of endorsing a notorious explanation of thoughts that has been attacked by contemporary philosophers.<sup>71</sup> Boethius would not agree with the idea that our thoughts are really like pictures,<sup>72</sup> because he more frequently characterizes a thought (*intellectus*) as a linguistic medium saying that there is a noun, a verb and a sentence in thoughts. It is still true that he describes contents of our cognition as if they were pictures to be completed gradually. The graphic explanation of mental contents and the ranking of different mental functions are typically Neoplatonic ideas taken by many commentators on Aristotle before and after Boethius.<sup>73</sup>

Sten Ebbesen describes ancient commentators from Porphyry to Philoponus as “chimeras with an Aristotelian body barely managing to keep the Platonic head and the Stoic tail.”<sup>74</sup> Integrating Stoicism and Neo-

<sup>65</sup> See Chapter 1, § 5.1, esp. p. 38.

<sup>66</sup> See Chapter 3, especially notes 65, 120 and 134 and the diagram on page 107.

<sup>67</sup> See Chapter 3, § 3.4 and § 4.1–4.3.

<sup>68</sup> See pp. 29–30 in Chapter 1, § 4.1.

<sup>69</sup> Magee 1989: 100.

<sup>70</sup> See pp. 29–30 in Chapter 1, § 4.1.

<sup>71</sup> For instance, see Ackrill 1963: 113 (his note on 16a3); Fodor 1975: 183. Wittgenstein first made the most foundational critique of this type of explanation in his *Philosophical Investigations*, most famously in II, xi.

<sup>72</sup> Cf. Cameron 2009: 103, n. 18: “This illustration is not meant to suggest that Boethius thinks of the likeness as a kind of picture, or representation. Rather, it is meant to describe the processional character of the movement from imagination to understanding as from being indistinct to being fully filled in.”

<sup>73</sup> For the Neoplatonic system of the hierarchy in the soul, see Blumenthal 1996: ch. 7.

<sup>74</sup> Ebbesen 1990b: 459.

Platonism into his own theories, Boethius, as an Aristotelian commentator, is one of these chimeras. He has a rather small Platonic head and a relatively long Stoic tail.

Given that he belongs to the commentators' tradition, to what extent is Boethius an original thinker or commentator? His heavy dependence on Porphyry is evident.<sup>75</sup> How much does he differ from Porphyry? Answering this question fully would require a study of Porphyry as well as Boethius. With respect to Porphyry, I am not yet prepared to say something about the scholarship. I am, however, convinced that Boethius has at least *some* originality in his manner of synthesizing different philosophical traditions, including Aristotle, the Stoics, (Neo-)Platonism, and perhaps even Augustine. Opposing Porphyry and other commentators, Boethius endorses the unity of conditional propositions.<sup>76</sup> Ammonius' commentary on *Peri hermeneias* is *not* a major source for Boethius' commentaries on the work,<sup>77</sup> but a comparison of their commentaries would give us an idea of 'Porphyrian Semantics'.<sup>78</sup> In other words, it is possible to surmise what Porphyry said in his lost commentary on *Peri hermeneias* by finding similarities between them. By way of this comparison, I doubt that Porphyry explicitly endorses the one-stage view of signification (see § 1 (2)). Moreover, I suspect that Porphyry does not emphasize the communicative aspect of language (see § 1 (3)) and the role of will as much as Boethius does.<sup>79</sup> It is tempting to think that the emphasis on the communicative aspect of language and the role of will are Boethius' original analyses, possibly of Augustinian inspiration.<sup>80</sup>

---

<sup>75</sup> Andrew Smith (1993) has collected twenty-seven fragments and three testimonies of Porphyry from Boethius' works. Among the collected items, twenty-four fragments and two testimonies come from Boethius' second commentary on *Peri hermeneias*. Presumably there are more texts where Boethius shares the same ideas as Porphyry.

<sup>76</sup> See Chapter 5, § 5.2.

<sup>77</sup> Pace De Rijk. See Chapter 6, especially § 5.2–5.4.

<sup>78</sup> See p. 219 in Chapter 6, § 5.4.

<sup>79</sup> Ebbesen (1987: 302–303 = repr., 386–387) points out other differences. He says that Boethius deontologizes logic and pushes the economy of assumptions further than Porphyry.

<sup>80</sup> Chadwick (1981: 248–251) sees shadows of Augustinianism in Boethius' works, especially in the *Consolation of Philosophy*. For a discussion of Boethius' general attitude toward Augustine, see Magee 2008: 12–13. The difference between Augustine's theory of signs and Boethius' theory of signification is great. Augustine's semiotics is deeply influenced by the Stoics (see Baratin 1981 and Manetti 1993, ch. 10) while Boethius' semantics is basically Aristotelian or Porphyrian. According to Boschung (2006: esp. 310–311), however, Anselm reads Boethius' commentaries on *Peri hermeneias* from an Augustinian point of view, particularly of *De magistro*. Anselm may have rightly detected the subtle connection between these two works.

Boethius' commentaries on *Peri hermeneias* were a major source of inspiration for medieval thinkers who considered problems of logic and language. I think that these two commentaries, especially the second one, are still worth reading in thinking about the nature of logic and language, and I hope that I have shown this through some of my discussions. There remains little doubt that these commentaries are indispensable for understanding Aristotelian semantics and logic philosophically and historically. I can only hope that my current study has made some contribution to rediscovering the significance of Boethius' works.

## BIBLIOGRAPHY

### 1. *Primary Sources and Selected Translations*

All English translations from Greek and Latin texts are basically mine, but I often consult currently available translations in making my own. Below is the list of the abbreviations, editions, and selected translations of the primary sources. If more than two editions of the same work are listed, I have principally cited and referred to the first one. The list of translations is in no way comprehensive. I primarily consulted English translations, but I sometimes checked French, and occasionally German and Italian translations. There are a large number of German and Italian translations not listed in this bibliography.

#### *Abbreviations of Series of Texts*

AL = Aristoteles Latinus  
CAG = Commentaria in Aristotelem Graeca  
CCL = Corpus Christianorum Series Latina  
GG = Grammatici Graeci  
GL = Grammatici Latini  
CSEL = Corpus Scriptorum Ecclesiasticorum Latinorum  
OCT = Oxford Classical Texts  
PL = Patrologia Latina  
SC = Sources Chrétiennes

#### 1.1. *Boethius' Original Works*

For a comprehensive list of Boethius' works with explanations, see Magee and Marenbon 2009 (listed in § 2).

*Commentarii in Ciceronis Topica.* eds. J.C. Orelli and G. Baierus. Pars Prima of *M. Tullii Ciceronis Scholiastae*. In vol. 5 of *Ciceronis Opera*. Zurich: Fuesslini, 1833. (= PL 64, 1039–1174.) [*In Cic. Top.*]

*Boethius's In Ciceronis Topica.* tr. E. Stump. See Stump 1988 in § 2.

*Commentarii in librum Aristotelis ΠΕΡΙ ΕΡΜΗΝΕΙΑΣ.* ed. C. Meiser. Leipzig: Teubner, 1877. [*In PH<sup>1</sup>, In PH<sup>2</sup>*]

*On Aristotle's On Interpretation 1–3.* tr. A. Smith. See Smith 2010 in § 2.

*On Aristotle's On Interpretation 4–6.* tr. A. Smith. London: Bristol Classical Press, 2011.

- On Aristotle's On Interpretation* 9. tr. N. Krezmann. See Blank and Kretzmann 1998 in § 2.
- De arithmetica*. eds. H. Oosthout and J. Schilling. CCL 94A. Turnhout: Brepols, 1999. [*De arith.*]
- Boethian Number Theory: A Translation of the De Institutione Arithmetica*. tr. M. Masi. Amsterdam: Rodopi, 1983.
- Institution arithmétique*. ed. and tr. J.-Y. Guillaumin. See Guillaumin 1995 in § 2.
- De consolatione philosophiae. Opuscula theologica*. ed. C. Moreschini. Munich, Leipzig: K.G. Saur, 2005. [CP]
- The Theological Tractates, The Consolation of Philosophy*. eds. and tr. H.F. Stewart, E.K. Rand and S.J. Tester. Cambridge, MA: Harvard University Press, 1973.
- The Consolation of Philosophy*. tr. R.H. Green. New York: Macmillan, 1962; repr., Dover: Mineola, 2002.
- Consolation of Philosophy*. tr. J.C. Relihan. Indianapolis: Hackett, 2000.
- Traité théologiques*. tr. A. Tisserand. Paris: Flammarion, 1999.
- Die Theologischen Traktate*. tr. M. Elsässer. Hamburg: F. Meiner, 1988.
- De divisione liber*. ed. and tr. J. Magee. See Magee 1998 in § 2. (= PL 64, 875–892.) [*De div.*]
- De hypotheticis syllogismis*. ed. and tr. (into Italian). L. Obertello. See Obertello 1969 in § 2. (= PL 64, 831–876.) [*De hyp. syll.*]
- De syllogismo categorico*. ed. and tr. C. Thomsen-Thörnqvist. See Thörnqvist 2009a in § 2. (PL 64, 793–832.) [*De cat. syll.*]
- De topicis differentiis*. PL 64, 1173–1216. [*De top. diff.*]
- Boethius's De topicis differentiis*. tr. E. Stump. See Stump 1978 in § 2.
- In Categorias Aristotelis*. PL 64, 159–294. [*In Cat.*]
- Introductio ad syllogismos categoricos*. ed. C. Thomsen-Thörnqvist. See Thörnqvist 2008b in § 2. (PL 64, 761–794.) [*Introd. cat. syll.*]
- In Isagen Porphyrii commenta*. ed. S. Brandt. CSEL 48. Vienna: Tempsky, 1906; repr., NY: Johnson Reprint, 1966. [*In Isag.*<sup>1</sup>, *In Isag.*<sup>2</sup>]
- The Second Commentary on Porphyry's Isagoge* (Book 1). tr. R. McKeon. In *Selections from Medieval Philosophers*, vol. 1, ed. R. McKeon, 1957, 70–99.
- Opera omnia*. Basel: Henricpetrina, 1570.
- Opera omnia*. PL 64. Paris: Migne, 1847.

### 1.2. Boethius' Latin Translations

- Analytica prior. Translatio Boethii (recensiones duae)*. ed. L. Minio-Paluello. AL III-1 and 2. See Minio-Paluello 1962 in § 2.
- Categoriae vel Praedicamenta*. ed. L.M. Minio-Paluello. AL I-1. Bruges: Desclée de Brouwer, 1961.
- De interpretatione vel Periermenias*. ed. L.M. Minio-Paluello. AL II-1. See Minio-Paluello 1965 in § 2.
- De sophisticis elenchis*. ed. B.G. Dod. AL VI-1. Bruxelles: Desclée de Brouwer, 1975.
- Isagoge*. ed. Minio-Paluello. AL I-6. Bruges: Desclée de Brouwer, 1966.
- Topica*. eds. L. Minio-Paluello and B.G. Dod. AL V-1 and 2. Bruxelles: Desclée de Brouwer, 1969.

1.3. *Works of Other Ancient and Medieval Thinkers*

Abelard

*Dialectica*. ed. L.M. de Rijk. Assen: Van Gorcum, 1970.

*Philosophische Schriften*. I: *Die Logica 'Ingredientibus'*. 3: *Die Glossen zu ΠΕΡΙ ΕΡΜΗΝΕΙΑΣ*. ed. B. Geyer. Munster: Aschendorffschen, 1927. [In PH]

Alexander of Aphrodisias

*In Aristotelis analyticorum priorum librum I commentarium*. ed. M. Wallies. CAG 2.1. Berlin: G. Reimer, 1883. [In PrA]

*On Aristotle's Prior Analytics 1.1–7*. tr. J. Barnes, S. Bobzien, K. Flannery, and K. Ierodiakonou. Ithaca: Cornell University Press, 1991.

*On Aristotle's Prior Analytics 1.8–13*. tr. I. Mueller and J. Gould. London: Duckworth, 1999.

*In Aristotelis metaphysica commentaria*. ed. M. Hayduck. CAG 1. Berlin: G. Reimer, 1891. [In Met.]

*On Aristotle's Metaphysics 4*. tr. A. Madigan. Ithaca: Cornell University Press, 1994.

*In Aristotelis topicorum*. ed. M. Wallies. CAG 2.2. Berlin: G. Reimer, 1891. [In Top.]

*On Aristotle's Topics 1*. tr. J.M. van Ophuijsen. Ithaca: Cornell University Press, 2001.

*Quaestiones*. ed. I. Bruns. CAG supplement 2.2. In *Praeter commentaria, Scripta minora*. Berlin: G. Reimer, 1892.

*Quaestiones 2.16–3.15*. tr. R.W. Sharples. Ithaca: Cornell University Press, 1994.

Ambrose [Ps-Ambrose]

*Explanatio symboli*. ed. O. Faller. In *Sancti Ambrosii Opera*, pars VII. CSEL 73. Vienna: Hoelder, Pichler, Tempsky, 1955, 1–12.

*Des sacrements; Des mystères; Explication du symbole*. tr. B. Botte. SC 25. Paris: Cerf, 1994.

Ammonius

*In Aristotelis analyticorum priorum librum I commentarium*. ed. M. Wallies. CAG 4.6. Berlin: G. Reimer, 1899. [In PrA]

*In Aristotelis categorias commentarius*. ed. A. Busse. CAG 4.4. Berlin: G. Reimer, 1895. [In Cat.]

*On Aristotle's Categories*. tr. S.M. Cohen and G.B. Matthews. Ithaca: Cornell University Press, 1991.

*In Aristotelis de interpretatione commentarius*. ed. A. Busse. CAG 4.5. Berlin: G. Reimer, 1897. [In PH]

*On Aristotle's On Interpretation 1–8 and 9*. tr. D. Blank. See Blank 1996 and Blank and Kretzmann 1998 in § 2.

*In Porphyrii Isagogen, sive, V voces*. CAG 4.3. ed. A. Busse. Berlin: G. Reimer, 1891. [In Isag.]

## Anselm

*Monologion*. ed. F.S. Schmitt. Stuttgart: Friedrich Frommann, 1964.

*The Major Works*. tr. and eds. B. Davies and G.R. Evans. Oxford: Oxford University Press, 1998.

## Apollonius Dyscolus

*De coniunctione*. In *Appolloni Dyscoli scripta minora a Richardo Schneidero edita continens*. ed. G. Uhlig. GG II-1, Fac. 1. Leipzig: Teubner, 1878.

*Traité des conjuctions*. ed. and tr. C. Dalimier. Paris: J. Vrin, 2001.

*De constructione libri quattuor*. GG II-II. ed. G. Uhlig. Leipzig: Teubner, 1910.

*The Syntax of Apollonius Dyscolus*. tr. F.W. Householder. Amsterdam: John Benjamins, 1981.

*De la construction*. 2 vols. tr. J. Lallot. Paris: J. Vrin, 1997.

## Apuleius

*Peri hermeneias*. In *Apuleius Platonici Madaurensis opera quae supersunt*, tom. III: *De philosophia libri*. ed. C. Moreschini. Stuttgart: Teubner, 1991. [PH]

*Peri hermeneias*. tr. (into English). D. Londey and C. Johanson. See Londey and Johanson 1987 in § 2.

## Aristotle

*Analytica priora et posteriora*. ed. L. Minio-Paluello. OCT. Oxford: Oxford University Press, 1964. [PoA, PrA]

*Prior Analytics*. tr. R. Smith. Indianapolis: Hackett, 1989.

*Prior Analytics: Book I*. tr. G. Striker. New York: Oxford University Press, 2009.

*Posterior Analytics*. tr. J. Barnes. Oxford: Clarendon Press, 1994.

*Ars rhetorica*. ed. W.D. Ross. OCT. Oxford: Oxford University Press, 1959. [Rhet.]

*Categoriae et Liber de interpretatione*. ed. L. Minio-Paluello. OCT. Oxford: Oxford University Press, 1949. [Cat., PH]

*Categories and De interpretatione*. tr. J.L. Ackrill. See Ackrill 1963 in § 2.

*The Categories; On Interpretation*. tr. H.P. Cook. See Cook 1962 in § 2.

*Peri Hermeneias*. tr. H. Weidemann. See Weidemann 2002 in § 2.

*De anima*. ed. W.D. Ross. OCT. Oxford: Oxford University Press, 1956. [DA]

*De arte poetica liber*. ed. R. Kassel. OCT. Oxford: Oxford University Press, 1965. [Poet.]

*De generatione animalium*. ed. H.J.D. Lulofs. Oxford: Oxford University Press, 1965. [GA]

*Ethica nicomachea*. ed. L. Bywater. OCT. Oxford: Oxford University Press, 1894. [EN]

*Fragmenta selecta*. ed. W.D. Ross. OCT. Oxford: Oxford University Press, 1955. [Fr.]

*Metaphysica*. ed. W. Jaeger. OCT. Oxford: Oxford University Press, 1957. [Met.]

*Physica*. ed. W.D. Ross. OCT. Oxford: Oxford University Press, 1956. [Phys.]

*Politica*. ed. W.D. Ross. OCT. Oxford: Oxford University Press, 1957. [Pol.]

*Topica et Sophistici elenchi*. ed. W.D. Ross. OCT. Oxford: Oxford University Press, 1958. [Top., SE]



*Topics: Books I and VIII.* tr. R. Smith. New York: Oxford University Press, 1997.  
*Topiques.* 2 vols. ed. and tr. J. Brunshwig. Paris: Les Belles Lettres, 1967.  
*Les réfutations sophistiques.* tr. L.-A. Dorion. Paris: J. Vrin, 1995.  
*The Complete Works of Aristotle.* 2 vols. ed. J. Barnes. Princeton: Princeton University Press. ('Revised Oxford translation')

#### Augustine

*De magistro.* ed. K.-D. Dauer. In *Contra academicos, De beata vita, De ordine, De magistro, De libero arbitrio.* CCL 29. Turnholt: Brepols, 1970.  
*Against Academicians and The Teacher.* tr. P. King. Indianapolis: Hackett, 1995.  
*De dialectica.* ed. J. Pinborg and tr. B.D. Jackson. Dordrecht: D. Reidel, 1975.  
*De doctrina christiana.* ed. R.P.H. Green. CSEL 38. Vienna: Tempsky, 1963. [*De doc. christ.*]  
*On Christian Teaching.* tr. R.P.H. Green. Oxford: Oxford University Press, 1997.  
*De mendacio; Contra mendacium.* ed. J. Zycha. In CSEL 41, Vienna: F. Tempsky, 1900.  
*Lying.* tr. S. Muldowney; *Against Lying.* tr. H.B. Jaffee. In *Treatises on Various Subjects, The Fathers of the Church* 16. Washington, D.C.: Catholic University of America Press, 1952.  
*De trinitate liber XV.* CCL 50. ed. W.J. Mountain. 2 vols. Turnholt: Brepols, 1968.  
*The Trinity.* tr. E. Hill. The Works of Saint Augustine I-5. Brooklyn: New City Press, 1991.  
*La Trinité.* Livres VIII–XV. tr. P. Agaësse and J. Moingt. See Agaësse *et al.*, 1991 in § 2.  
*Enchiridion ad Laurentium de fide et spe et caritate.* ed. E. Evans. In *De fide rerum invisibilium.* CCL 56. Turnholt: Brepols, 1969. [*Enchiridion*]  
*The Enchiridion on Faith, Hope and Love.* tr. B. Harbert. New York: New City Press, 2008.  
*In Iohannis Evangelium tractatus CXXIV.* ed. R. Willems. CCL 36. Turnholt: Brepols, 1954. [*Tract. in Ioh.*]  
*Tractates on the Gospel of John.* vol. 3: 28–54. tr. J.W. Rettig. The Fathers of Church 88. Washington DC: Catholic University of America Press, 1993.  
*Sermones. Opera omnia.* tomus V-1. PL 38. Paris: Migne, 1865.  
*Sermons.* vol. 6: Sermons (184–229Z) on the Liturgical Seasons. tr. E. Hill. The Works of Saint Augustine III-6. New York: New City Press, 1993.

#### Bacon, Roger

*De signis.* eds. K.M. Fredborg, L. Nielsen, and J. Pinborg. In "An Unedited Part of Roger Bacon's *Opus maius* 'De signis.'" *Traditio* (1978) 34: 75–136.

#### Buridan, John

*Summulae de practica sophismatum.* ed. F. Pironet. Turnhout: Brepols, 2004. [*Sophismata*]  
*Sophismata.* ed. T.K. Scott. Stuttgart: Friedlich Frommann and Günther Holzboog, 1977.  
*Summulae de Dialectica.* tr. G. Klima. New Haven: Yale University Press, 2001.  
*Sophismes.* tr. J. Biard. Paris: J. Vrin, 1993.

Burley, Walter

*De puritate artis logicae tractatus longior*: with a revised edition of the *Tractatus brevior*. ed. Ph. Boehner. St. Bonaventure: Franciscan Institute, 1955.

*On the Purity of the Art of Logic: The Shorter and the Longer Treatises*. tr. P.V. Spade. New Haven: Yale University Press, 2000.

Calcidius

*Timaeus a Calcidio translatus commentarioque instructus*. ed. P.J. Jensen and J.H. Waszink. Plato latinus 4. Leiden: E.J. Brill, 1975.

Cassiodorus

*Institutiones divinarum et saecularium litterarum; Einführung in die geistlichen und weltlichen Wissenschaften*. ed. and tr. W. Bürgens. Freiburg: Herder, 2003. [*Institutiones*]

*Institutiones*. ed. R.A.B. Mynors. OCT. Oxford: Clarendon Press, 1937.

*Institutions of Divine and Secular Learning; and, On the Soul*. tr. J.W. Halporn. Liverpool: Liverpool University Press, 2004.

Cicero

*Academica prior*. In *Academica*. ed. J.S. Reid. London: Macmillan, 1885. [*Acad.* I]

*Academica posterior*. In *Akademische Abhandlungen Lucullus*. ed. and tr. C. Schäublin. Hamburg: Felix Meiner, 1995. [*Acad.* II]

*De natura deorum, Academica*, ed. and tr. H. Rackham. Cambridge, MA: Harvard University Press, 1951.

*On Academic Scepticism*. tr. C. Brittain. Indianapolis: Hackett, 2006.

*De divinatione*. ed. A.S. Pease. Darmstadt: Wissenschaftliche Buchgesellschaft, 1977.

*Cicero on Divination: Book 1*. tr. D. Wardle. Oxford: Oxford University Press, 2007.

*De fato*. In *Cicero: On Fate & Boethius: The Consolation of Philosophy* IV.5–7 & V, ed. and tr. R.W. Sharples, Warminster: Aris & Phillips, 1991.

*De inventione*. In *De l'invention*. ed. and tr. G. Achard. Paris: Les Belles Lettres, 1994. [*De inv.*]

*On Invention. The Best Kind of Orator. Topics*. ed. H.M. Hubbell. Cambridge: Harvard University Press, 1949.

*De re publica*. In *De re publica, De legibus, Cato maior de senectute, Laelius de amicitia*, ed. J.G.F. Powell. OCT. Oxford: Oxford University Press, 2006.

*De re publica, De legibus*. ed. and tr. C.W. Keyes. Cambridge: Harvard University Press, 1928.

*The Republic and The Laws*. tr. N. Rudd. Oxford: Oxford University Press, 1998.

*Topica*. ed. and tr. T. Reinhardt. See Reinhardt 2003 in § 2. [*Top.*]

*Tusculanae disputationes*. In *Tusculan Disputations I*. ed. and tr. A.E. Douglas. Warminster: Aris & Phillips, 1994. [*Tusc.*]

*Tusculanae disputationes; Tusculan disputations*. ed. and tr. J.E. King. Cambridge: Harvard University Press, 1945.

Clement of Alexandria

*Protrepticus*. In *Clementis Alexandrini opera*, vol. 1. ed. W. Dindorf. Oxford: Clarendon Press, 1869.

*The Exhortation to the Greeks, The Rich Man's Salvation, To the Newly Baptized*. tr. G.W. Butterworth. Cambridge: Harvard University Press, 1919.

*Le Proteptique*. ed. and tr. C. Mondésert. Paris: Cerf, 1949.

Cyprian

*Epistulae*. Pars III-2 of *Sancti Cypriani episcopi opera*. vol. 3: Ep. 58–81. ed. G.F. Diercks. CCSL 3C. Turnholt: Brepols, 1996.

*The Letters of St. Cyprian of Carthage*. vol. 4: Letters 67–82. tr. G.W. Clarke. Ancient Christian Writers 47. See Clarke 1984 in § 2.

*Correspondance*. tome 2. tr. L. Bayard. Paris: Les Belles Lettres, 1925.

Dexippus

*In Aristotelis categorias commentarium*. ed. A. Busse. CAG 4.2. Berlin: G. Reimer, 1888. [In Cat.]

*On Aristotle's Categories*. tr. J. Dillon. Ithaca: Cornell University Press, 1990.

Diogenes Laertius

*Vitae philosophorum*. vol. 2. ed. H.S. Long. OCT. Oxford: Clarendon Press, 1964. [DL]

*Lives of Eminent Philosophers*. vol. 2: Books VI–X. revised edition. ed. and tr. R.D. Hicks. Cambridge: Harvard University Press, 1931.

*Vies et doctrines des philosophes illustres*. tr. M.-O. Goulet-Cazé, J.-F. Balaudé, J. Brunschwig, T. Dorandi and R. Goulet. Paris: Générale française, 1999.

Dionysius Thrax

*Ars grammatica*. ed. G. Uhlig. GG I–I. Leipzig: Teubner, 1883.

“The *Tekhnē of Grammatikē* of Dionysius Thrax: English Translation with Introduction and Notes.” tr. A. Kemp, in Taylor 1987b, 169–189.

*La grammaire de Denys le Thrace*. tr. J. Lallot. Paris: CNRS, 1989.

Donatus

*Ars minor, Ars maior*. ed. L. Holtz. See Holtz 1981 in § 2. [Ars. min., Ars mai.]

*The Ars minor of Donatus*. tr. W.J. Chase. University of Wisconsin Studies in the Social Sciences and History 11. Madison: University of Wisconsin, 1926; repr. without notes, in *On Language: Plato to von Humboldt*, ed. P.H. Salus, New York: Holt, Rinehart and Winston, 1969, 92–103.

Firmicus Maternus

*L'erreur des religions paiennes*. ed. and tr. Robert Turcan. Paris: Les Belles Lettres, 1982. [De errone profanarum religionum]

*The Error of the Pagan Religions*. Ancient Christian Writers 37. tr. C.A. Forbes. See Forbes 1970 in § 2.

## Galen

*Institutio logica*. ed. C. Kalbfleisch. Leipzig: Teubner, 1896.

Galen's *Institutio Logica*. tr. J.S. Kieffer. Baltimore: The John Hopkins Press, 1964.

*Einführung in die Logik*. tr. J. Mau. Berlin: Akademie, 1960.

*De captionibus in dictione*. ed. S. Ebbesen. In vol. 2 of *Commentators and Commentaries on Aristotle's Sophistici elenchi: A Study of Post-Aristotelian Ancient and Medieval Writings on Fallacies*, Leiden: E.J. Brill, 1981, 1–25. [*De captionibus*]

*Galen on Language and Ambiguity: An English Translation of Galen's 'De Captionibus (On Fallacies)' with Introduction, Text and Commentary*. tr. R.B. Edlow. Leiden: E.J. Brill, 1977.

*Traité philosophiques et logiques*. tr. P. Pellegrin, C. Dalimier and J.-P. Levet. Paris: Flammarion, 1998.

## Gellius

*Noctes atticae*. 2 vols. ed. P.K. Marshall. OCT. New York: Oxford University Press, 1990; originally published, 1968.

*The Attic Nights of Aulus Gellius*. 3 vols. tr. J.C. Rolfe. Cambridge: Harvard University Press, 1927.

*Les Nuits attiques*. 4 vols. tr. R. Marache and Y. Julien. Paris: Les Belles Lettres, 1967–1998.

## Herodotus

*Historiae*. vol. 2: Libri 5–9. ed. C. Hude. OCT. Oxford: Clarendon Press, 1927.

*The Histories*. tr. C. Dewald and R. Waterfield. Oxford University Press, 2008.

## Homer

*Odysseae*. ed. T.W. Allen. OCT. Oxford: Clarendon Press, 1917. [*Od.*]

*The Odyssey*. 2 vols. ed. and tr. A.T. Murray. Cambridge, MA: Harvard University Press, 1995.

## Horace

*Carminum*. In *Horati Flacci opera*. ed. E.C. Wickham. OCT. Oxford: Oxford University Press, 1912.

*Odes and Epodes*, ed. and tr. N. Rudd. Cambridge: Harvard University Press, 2004.

## Iamblichus

*Les mystères d'Égypte*. tr. É. des Places. Paris: Les Belles Lettres, 1966. [*De mysteriis*.]

*Iamblichus' On the Mysteries*. tr. E.C. Clarke, J.M. Dillion, and J.P. Hershbell. See Clarke, Dillion and Hershbell 2003 in § 2.

## Lucretius

*De rerum natura libri sex*. vol. 1: *Prolegomena, Text and Critical Apparatus, Translation*. ed. and tr. C. Bailey. Oxford: Clarendon Press, 1947.

Martianus Capella

*De nuptiis philologiae et mercurii*. ed. J. Willis. Leipzig: Teubner, 1983.

*De nuptiis philologiae et mercurii*. ed. A. Dick. Leipzig: Teubner, 1925.

*The Marriage of Philology and Mercury*. tr. W.H. Stahl, R. Johnson and E.L. Burge.

See Stahl, Johnson and Burge 1977 in § 2.

*La dialectique: Les noces de philologie et de Mercure*. 4: livre 4. tr. M. Ferré. Paris:

Les Belles Lettres, 2007.

Nigidius Figulus

*Operum reliquiae*. ed. A. Swoboda. Amsterdam: A.M. Hakkert, 1964. [Fr.]

Ockham, William of

*Expositio in librum perihermenias Aristotelis*. eds. A. Gambatese and S. Brown.

In vol. 2 of *Opera Philosophica*, St. Bonaventure: Franciscan Institute, 1978.

[In PH]

*Quodlibeta septem*. vol. 9 of *Opera theologica*. ed. J.C. Wey. St. Bonaventure: Franciscan Institute, 1980. [Quodl.]

*Quodlibetal Questions*. tr. A.J. Freddoso and F.E. Kelley. New Heaven: Yale University Press, 1991.

*Summa logicae*. vol. 1 of *Opera philosophica*. eds. P. Boehner, G. Gál, and S. Brown. St. Bonaventure: Franciscan Institute, 1974. [SL]

*Ockham's Theory of Terms*. Part I of the *Summa logicae*. tr. M.J. Loux. Notre Dame: Notre Dame University Press, 1974.

Origen

*Contra Celsum libri VIII*. ed. M. Marcovich. Boston: E.J. Brill, 2001.

*Contra Celsum*. tr. H. Chadwick. Cambridge: Cambridge University Press, 1965.

Ovid

*Fasti*. ed. and tr. J.G. Frazer and revised by G.P. Goold. Cambridge, MA: Harvard University Press, 1989.

Philoponus, John

*In Aristotelis categorias commentarium*. ed. A. Busse. CAG 13.1. Berlin: G. Reimer, 1898. [In Cat.]

*In Aristotelis Analytica priora commentaria*. ed. M. Wallies. CAG 13.2. Berlin: G. Reimer, 1905. [In PrA]

Pindar

*Olympia*. In *Pindari carmina*. ed. C.M. Bowra. OCT. Oxford: Clarendon Press, 1935.

*The Odes of Pindar including the Principal Fragments*. ed. and tr. J. Sandys. Cambridge, MA: Harvard University Press, 1937.

Plato

*Platonis opera*. 5 vols. ed. J. Burnet. OCT. Oxford: Clarendon Press, 1900–1907.

*Plato's Complete Works*. eds. J. Cooper and D.S. Hutchinson. Indianapolis: Hackett, 1997.

#### Plautus

*Pseudolus* and *Bacchides*. In *Comoediae*. 2 vols. ed. W.M. Lindsay. OCT. Oxford: Clarendon Press, 1905.

*Plautus*. vol. 1: *Amphitryon, The Comedy of Asses, The Pot of Gold, The Two Bacchises, The Captives*. ed. and tr. P. Nixon. Cambridge: Harvard University Press, 1921.

*Plautus*. vol. 4: *The Little Carthaginian, Pseudolus, The Rope*. ed. and tr. P. Nixon. Cambridge: Harvard University Press, 1932.

#### Pliny the Elder

*Naturalis historia*. vol. 5. ed. K. Mayhoff. Leipzig: Teubner, 1897.

*Natural History*. vol. 9: Books XXXIII–XXXV. ed. and tr. H. Rackham. Cambridge: Harvard University Press, 1952.

*Histoire naturelle*. Livre XXXIII. ed. H. Zehnacker. Paris: Les Belles Lettres, 1983.

#### Plotinus

*Enneades*. In *Plotini opera*. 3 vols. eds. P. Henry and H.R. Schwyzer. OCT. Oxford: Oxford University Press, 1964–1983.

*Enneads*. 7 vols. ed. and tr. A.H. Armstrong. Cambridge: Harvard University Press, 1966–1988.

#### Plutarch

*Adversus Colotem*. In *Plutarchus Moralia*, vol. 6. ed. R. Westman. Leipzig: Teubner, 1969. [Adv. Colotem]

*Reply to Colotes in Defence of the Other Philosophers*. In *Plutarch's Moralia*, vol. 14. eds. and tr. B. Einarson and P.H. de Lacy. Cambridge: Harvard University Press, 1967.

*De E apud Delphos*. In *Plutarchus Moralia*, vol. 3. ed. W. Sieveking. Leipzig: Teubner, 1972.

*The E at Delphi*. In *Plutarch's Moralia*, vol. 5. ed. and tr. F.C. Babbitt. Cambridge: Harvard University Press, 1936.

*Platonicae quaestiones*. In *Plutarchus Moralia*, vol. 6. ed. W. Sieveking. Leipzig: Teubner, 1895.

*Platonic Questions*. In *Plutarch's Moralia*, vol. 13, part. 1. ed. and tr. H. Cherniss. Cambridge: Harvard University Press, 1976.

#### Porphyry

*De abstinence*. In *De l'abstinence*. vol. 2. eds. and tr. J. Bouffartigue and M. Patillon. Paris: Les Belles Lettres, 1979.

*On Abstinence from Killing Animals*. tr. G. Clark. Ithaca: Cornell University Press, 2000.

*In Aristotelis categorias commentarius*. In *Commentaire aux Catégories d'Aristote*. ed. and tr. R. Bodéüs. Paris: J. Vrin, 2008. [In Cat.]

*On Aristotle's Categories*. tr. S.K. Strange. Ithaca: Cornell University Press, 1992.

*Isagoge*; In *Aristotelis categorias commentarius*. ed. A. Busse. CAG 4.1. Berlin, 1887. [*Isag.*, *In Cat.*]

*Introduction*. tr. J. Barnes. See Barnes 2003 in § 2.

*Isagoge*. tr. A. de Libera and A.-Ph. Segonds. Paris: J. Vrin, 1998.

*Isagoge*. tr. G. Girgenti. Milan: Rusconi, 1995. In *Die Harmonielehre des Klaudios Ptolemaios*; *Porphyrios Kommentar zur Harmonielehre des Ptolemaios*. ed. I. Düring. Gothenburg: University of Gothenburg Press; repr., Hildesheim: Georg Olms, 1978. [*In Harm.*]

#### Posidonius

*Fragments*. *Posidonius*. vol. 1: *Fragments*. eds. L. Edelstein and I.G. Kidd. Cambridge: Cambridge University Press, 1989. [*Fr.*]

*Posidonius*. vol. 3: *The Translation of the Fragments*. tr. I.G. Kidd. Cambridge: Cambridge University Press, 1999.

#### Priscianus

*Institutiones grammaticae libri XVIII*. 2 vols. GL II–III. ed. M. Hertz. Leipzig: Teubner, 1855–1859. [*Inst.*]

#### Probus

*Instituta artium*. GL IV. ed. H. Keil. Leipzig: Teubner, 1864.

#### Proclus

*In Platonis Cratylum commentaria*. ed. G. Pasquali. Stuttgart: Teubner, 1908. [*In Cratyl.*]

*On Plato's Cratylus*. tr. B. Duval. Ithaca: Cornell University Press, 2007.

*In Platonis Parmenidem commentaria*. vol. 2. ed. C. Steel. Oxford: Oxford University Press, 2008. [*In Parm.*]

*Proclus' Commentary on Plato's Parmenides*. tr. G.M. Morrow and J.M. Dillon. Princeton: Princeton University Press, 1987.

*In Platonis Timaeum commentaria*. vol. 2. ed. E. Diehl. Leipzig: Teubner, 1904. [*In Tim.*]

*Commentaire sur le Timée*. vol. 3. tr. A.J. Festugière. Paris: J. Vrin, 1967.

*The Commentaries of Proclus on the Timaeus of Plato*. tr. T. Taylor. London, 1820; repr., vol. 2, Kessinger, 2002.

*Commentary on Plato's Timaeus*. vol. 4: Book 3, Part 2: *Proclus on the World Soul*. tr. D. Baltzly. Cambridge: Cambridge University Press, 2010.

*Theologica platonica. Théologie platonicienne*. vol. 1. eds. and tr. H.D. Saffrey and L.G. Westerink. Paris: Les Belles Lettres, 1969.

*The Theology of Plato*. vol. 1. tr. T. Taylor. London: Law, Longman, Baldwin, 1816; repr., El Paso: Selene Books, 1985.

#### Quintilian

*Institutiones oratoriae; The Orator's Education*. ed. and tr. D.A. Russell. Cambridge: Harvard University Press, 2001. [*Inst.*]

## Rufinus of Aquileia

*Expositio symboli.* In *Opera.* ed. M. Simonetti. CCSL 20. Turnholt: Brepols, 1961.

*A Commentary on the Apostles' Creed.* tr. J.N.D. Kelly. Ancient Christian Writers 20. Westminster: Newman Press, 1955.

## Scotus, Duns

*Quaestiones in libros Perihermenias Aristotelis.* eds. R. Andrews, G. Etzkorn, G. Gál, R. Green, T. Noone, R. Plevano, A. Traver and R. Wood. Washington, D.C.: Catholic University of America, 2004. [In PH]

*Signification et vérité. Questions sur le Peri hermeneias d'Aristote.* tr. G. Sondag. Paris: J. Vrin, 2009.

## Seneca

*Ad Lucilium epistulae morales.* tom. 1: Libri I–XIII. ed. L.D. Reynolds. Oxford: Clarendon Press, 1965. [Epistulae]

*Ad Lucilium Epistulae Morales.* vol. 1. ed. and tr. R.M. Gummere. Cambridge, MA: Harvard University Press, 1917.

*Lettres à Lucilius.* vol. 2. tr. H. Noblot. Paris: Les Belles Lettres, 1947.

## Sextus Empiricus.

*Adversus mathematicos. Sexti Empirici opera.* vol. 2. ed. H. Mutschmann. Leipzig: Teubner, 1914. [Adv. math.]

*Adversus mathematicos.* vol. 3: *Against the Logicians.* ed. and tr. R.G. Bury. Cambridge: Harvard University Press, 1933.

*Against the logicians.* tr. R. Bett. Cambridge: Cambridge University Press, 2005.

*Gegen die Dogmatiker: Adversus mathematicos libri 7–11.* tr. H. Flückiger. St. Augustin: Academia, 1998.

## Simplicius

*In Aristotelis categorias commentarium.* ed. C. Kalbfleisch. CAG 8. Berlin: G. Reimer, 1907. [In Cat.]

*On Aristotle's Categories 1–4.* tr. M. Chase. Ithaca: Cornell University Press, 2003.

*On Aristotle's Categories 9–15.* tr. R. Gaskin. Ithaca: Cornell University Press, 2000.

*Commentaire sur les Catégories.* tr. I. Hadot, P. Hadot, Ph. Hoffmann, J.-P. Mahé, and C. Luna. Leiden: E.J. Brill, 1989–1990.

## Suetonius

*De vita Caesarum.* In *Suetoni opera,* vol. 1: *De vita Caesarum Libri VIII.* ed. M. Ihm. Leipzig: Teubner, 1908.

*Suetonius.* vol. 1. tr. J.C. Rolfe. Cambridge, MA: Harvard University Press, 1951.

## Tertullian

*Adversus Marcionem.* vol. 2: Books 4 and 5. ed. and tr. E. Evans. Oxford: Clarendon Press, 1972. [Adv. Marc.]



## Thomas Aquinas

*Expositio libri Peryermenias*. tom. 1–1 of *Opera omnia* iussu impensaue Leonis XIII P.M. edita Sancti Thomae Aquinatis, Rome, 1989. [*In PH*]

*In Aristotelis libros Peri hermeneias et Posteriorum analyticorum*. ed. R.M. Spiazzi. Turin: Marietti, 1964.

*Aristotle: On Interpretation. Commentary by St. Thomas*. tr. J.T. Oesterle. See Oesterle 1962 in § 2.

*Commentaire du traité De l'interprétation d'Aristote*. tr. B. Couillaud and M. Couillaud. Paris: Les Belles Lettres, 2004.

*Super Boetium De Trinitate*. tom. 50 of *Opera omnia* iussu impensaue Leonis XIII P.M. edita Sancti Thomae Aquinatis, Rome, 1992. [*In de trinitate*]

*The Divisions and Methods of the Science: Questions V and VI of his Commentary on the De Trinitate of Boethius*. tr. A. Maurer. Toronto: Pontifical Institute of Mediaeval Studies, 1953.

## Varro

*De lingua latina libri*. eds. L. Spengel and A. Spengel. Berlin: Weidmann, 1885. [*De lingua latina*]

*De lingua latina X: A New Critical Text and English Translation with Prolegomena and Commentary*. ed. and tr. D.J. Taylor. Amsterdam: J. Benjamins, 1996.

*On the Latin Language*. 2 vols. ed. and tr. Roland G. Kent. Cambridge: Harvard University Press, 1951.

## Virgil

*Aeneidos, Eclogues, Georgics*. In *P. Vergili Maronis opera*. ed. F.A. Hirtzel. OCT. Oxford: Clarendon Press, 1900. [*Aen., Ecl., Georg.*]

*Eclogues, Georgics, Aeneid*. tr. H.R. Fairclough and revised tr. G.P. Goold. Cambridge: Harvard University Press, 1999–2000.

## Xenophon

*Cyropaedia* = *Cyropédie*. tr. M. Bizos. vol. 3. Paris: Les Belles Lettres, 1978.

*Cyropaedia*. vol. 2: Books V–VIII. ed. and tr. W. Miller. Cambridge, MA: Harvard University Press, 1914.

## 2. Secondary and Modern Literatures

Ackrill, J.L. 1963. *Aristotle: Categories and De interpretatione*. Oxford: Clarendon Press.

Adams, M.M. 1978. "Ockham's Theory of Natural Signification." *Monist* 61:444–459.

——, 1987. *William Ockham*. vol. 1. Notre Dame: University of Notre Dame Press.

Adamson, P.H. Baltussen, and M.W.F. Stone, eds. 2004. *Philosophy, Science and Exegesis in Greek, Arabic and Latin Commentaries*. vol. 1. Bulletin of the Institute of Classical Studies, supplement 83. Institute of Classical Studies, School of Advanced Study, University of London.

- Adamson, P.H., and R.C. Taylor, eds. 2005. *The Cambridge Companion to Arabic Philosophy*. Cambridge: Cambridge University Press.
- Agassès, P., and J. Moingt, tr. 1991. *La Trinité*. Livres VIII–XV. Paris: Desclée de Brouwer.
- Algra, K., J. Barnes, J. Mansfeld and M. Schofield, eds. 1999. *The Cambridge History of Hellenistic Philosophy*. Cambridge: Cambridge University Press.
- Arens, H. 1984. *Aristotle's Theory of Language and its Tradition: Texts from 500 to 1750*. Amsterdam: John Benjamins.
- Arnauld, A. and P. Nicole. 1981. *La logique ou l'art de penser*. eds. P. Clair and F. Girbal. Paris: J. Vrin.
- Ashworth, E.J. 1981. "Do Words Signify Ideas or Things?: The Scholastic Sources of Locke's Theory of Language." *Journal of the History of Philosophy* 19: 299–326.
- Asztalos, M. 1993. "Boethius as a Transmitter of Greek Logic to the Latin West: The Categories." *Harvard Studies in Classical Philology* 95: 367–407.
- Aubenque, P. 1962. *Le problème de l'être chez Aristote: Essai sur la problématique aristotélicienne*. Paris: Presses universitaires de France.
- , ed. 1980. *Concepts et catégories dans la pensée antique*. Paris: J. Vrin.
- Ax, W. 1986. *Laut, Stimme und Sprache: Studien zu drei Grundbegriffen der antiken Sprachtheorie*. Göttingen: Vandenhoeck & Ruprecht.
- , 1992. "Aristoteles (384–322)." In Dascal *et al.* 1992, 244–259; repr., in Ax 2000, 48–72.
- , 2000. *Lexis und Logos: Studien zur antiken Grammatik und Rhetorik*. ed. F. Grewing. Stuttgart: Franz Steiner.
- Bäck, A.T. 2000. *Aristotle's Theory of Predication*. Leiden: E.J. Brill.
- , 2003. "Aquinas on Predication." In Braarkhuis *et al.* 2003, 321–338.
- Baker, M.C. 2001. *The Atoms of Language: The Mind's Hidden Rules of Grammar*. New York: Basic Books.
- Baratin, M. 1981. "Les origines stoïciennes de la théorie augustinienne du signe." *Revue des études latines* 59: 260–268.
- , 1989. *La naissance de la syntaxe à Rome*. Paris: Minuit.
- , 1999. "La conception de l'énoncé dans les textes grammaticaux latin." In Büttgen *et al.* 1999, 171–188.
- Baratin, M., B. Colombat, L. Holt, eds. 2009. *Priscien: Transmission et refondation de la grammaire, de l'antiquité aux modernes*. Turnhout: Brepols.
- Barnes, J. 1981. "Boethius and the Study of Logic." In Gibson 1981, 73–89.
- , ed. 1982. *Science and Speculation: Studies in Hellenistic Theory and Practice*. Cambridge: Cambridge University Press.
- , 1991. "Ammonius and Adverbs." *Oxford Studies in Ancient Philosophy*, supplementary volume: *Aristotle and the Later Tradition*, eds. H. Blumenthal and H. Robinson, 145–163.
- , 1992. "Metacommentary." *Oxford Studies in Ancient Philosophy* 10: 267–281.
- , 1993. "Meaning, Saying and Thinking." In Döring *et al.* 1993, 47–61.
- , 1996. "Grammar on Aristotle's Terms." In M. Frede *et al.* 1996, 175–202.
- , 1999. "Introduction [to Logic and Language]." In Algra *et al.* 1999, 65–76.

- , 2003. *Porphyry, Introduction*. Oxford: Clarendon Press.
- , 2007. *Truth, etc.: Six Lectures on Ancient Logic*. Oxford: Clarendon Press.
- , 2009. "Quelques remarques sur la caractérisation des connecteurs chez Priscien." In Baratin *et al.* 2009, 365–383.
- Barnes, J., and M. Griffin, eds. 1997. *Philosophia togata II: Plato and Aristotle at Rome*. Oxford: Clarendon Press.
- Barnes, J., and D. Schenkeveld. 1999. "Language." In Algra *et al.* 1999, 177–213.
- Berka, K. 1968. "Die Semantik des Boethius." *Helikon* 8: 45–59.
- Bermon, E. 2007. *La signification et l'enseignement: Texte latin, traduction française et commentaire du De magistro de saint Augustin*. Paris: J. Vrin.
- Biard, J. 1989. *Logique et théorie du signe au XIVe siècle*. Paris: J. Vrin.
- , ed. 2009. *Le langage mental du moyen âge à l'âge classique*. Louvain: Peeters.
- Bidez, J. 1923. "Boèce et Porphyre." *Revue belge de philologie et d'histoire* 2:189–201.
- Blanche-Benveniste, C., A. Chervel and M. Gross, eds. 1988. *Grammaire et histoire de la grammaire: Hommage à la mémoire de Jean Stéfani*. Aix-en-Provence: Université de Provence.
- Black, D. 1992. "Aristotle's 'Peri hermeneias' in Medieval Latin and Arabic Philosophy: Logic and the Linguistic Arts." *Aristotle and his Medieval Interpreters. Canadian Journal of Philosophy*, supplementary vol. 17 (1991): 25–83.
- Blank, D. 1995. "Ammonius." In *The Stanford Encyclopedia of Philosophy*, ed. E.N. Zalta, <http://plato.stanford.edu/entries/ammonius/> (accessed July 7, 2009)
- , tr. 1996. *Ammonius on Aristotle's On Interpretation 1–8*. Ithaca: Cornell University Press.
- Blank, D., and N. Kretzmann, tr. 1998. *Ammonius on Aristotle's On Interpretation 9, Boethius On Aristotle's On Interpretation 9*. Ithaca: Cornell University Press.
- Blank, D., and C. Atherton. 2003. "The Stoic Contribution to Traditional Grammar." In Inwood 2003, 310–327.
- Blumenthal, H.J. 1996. *Aristotle and Neoplatonism in Late Antiquity: Interpretations of the De anima*. Ithaca: Cornell University Press.
- Bobzien, S. 2002. "A Greek Parallel to Boethius' *De hypotheticis syllogismis*." *Mnemosyne* 55: 285–300.
- , 2003. "Logic." In Inwood 2003, 85–123.
- Bochenski, I.M. 1961. *A History of Formal Logic*. Notre Dame: University of Notre Dame Press. tr. I. Thomas, *Formale Logik*, Freiburg: Karl Alber, 1956.
- Boh, I. 1982. "Consequences." In Kretzmann *et al.* 1982, 300–314.
- Bolton, R. 1976. "Essentialism and Semantic Theory: Aristotle *PrA* II 7–10." *The Philosophical Review* 85: 514–544.
- Bonfiglioli, S. 2008. *Agalma. Icone e simboli tra Platone e il neoplatonismo*. Bologna: Pàtron.
- Bonitz, H. 1870. *Index Aristotelicus*. Berlin: Georg Reimer.
- Boschung, P. 2004. "Boethius and the Early Medieval Quaestio." *Recherches de théologie et philosophie médiévales* 71: 233–259.
- , 2006. *From a Topical Point of View: Dialectic in Anselm of Canterbury's De grammatico*. Leiden: E.J. Brill.

- Braakhuis, H.A.G., and C.H. Kneepkens, eds. 2003. *Aristotle's Peri hermeneias in the Latin Middle Ages: Essays on the Commentary Tradition*. Groningen: Ingenium.
- Brandt, R. 1965. *Die Aristotelische Urteilslehre: Untersuchungen zur "Hermeneutik"*. Görich & Weiershäuser: Marburg.
- Brind'Amour, E., and V. Eugène, eds. 1983. *Archéologie du signe*. Toronto: PIM Press.
- Brower, J.E., and K. Guilfooy, eds. 2004. *The Cambridge Companion to Abelard*. Cambridge: Cambridge University Press.
- Brunschwig, J., ed. 2006. *Les Stoïciens et leur logique*. 2nd ed. Paris: Vrin; 1st ed., 1978.
- , 2008. "Le chapitre 1 du *De Interpretatione*: Aristote, Ammonius et nous." *Laval théologique et philosophique* 64:35–87.
- Burge, T. 1992. "Frege on Knowing the Third Realm." *Mind* 101: 633–650.
- Burnett, C. 2005. "Arabic into Latin: The Reception of Arabic Philosophy into Western Europe." In Adamson *et al.* 2005, 370–404.
- Burnyeat, M.F. 1982. "The Origins of Non-Deductive Inference." In Barnes 1982, 193–238.
- , 1994. "Enthymeme: Aristotle on the Logic of Persuasion." In Furley *et al.* 1994, 3–55.
- Buroker, J.V., tr. 1996. *Antoine Arnauld and Pierre Nicole: Logic or the Art of Thinking*. Cambridge: Cambridge University Press.
- Bursill-Hall, G.L., S. Ebbesen and E.F. Koerner, eds. 1990. *De ortu grammaticae: Studies in Medieval Grammar and Linguistic Theory in Memory of Jan Pinborg*. Amsterdam: John Benjamins.
- Büttgen, P., S. Diebler and M. Rashed, eds. 1999. *Théories de la phrase et de la proposition: De Platon à Averroès*. Éditions Rue d'Ulm: Presses de l'École normale supérieure.
- Butts, R.E., and J. Hintikka, eds. 1977. *Historical and Philosophical Dimensions of Logic, Methodology and Philosophy of Science*. Dordrecht: D. Reidel.
- Byers, S. 2006. "The Meaning of *Voluntas* in Augustine." *Augustinian Studies* 37: 171–189.
- Bywater, I. 1909. *Aristotle On the Art of Poetry*. Oxford: Clarendon Press.
- Cameron, M. 2009. "Boethius on Utterances, Understanding and Reality." In Marenbon 2009, 85–104.
- Candlish, S. 2001. "Grammar, Ontology, and Truth in Russell and Bradley." In Gaskin 2001b, 116–141.
- Cain, M.J. 2002. *Fodor: Language, Mind and Philosophy*. Cambridge: Polity.
- Caplan, H., tr. 1954. [*Cicero*] *Ad C. Herennium de ratione dicendi (Rhetorica ad Herennium)*. London, Cambridge MA: W. Heinemann, Harvard University Press.
- Carl, W. 1994. *Frege's Theory of Sense and Reference: Its Origins and Scope*. Cambridge: Cambridge University Press.
- Cary, P. 2008. *Outward Signs: The Powerlessness of External Things in Augustine's Thought*. Oxford: Oxford University Press.
- Centrone, B. 1996. *Introduzione ai Pitagorici*. Rome: Laterza.

- Chadwick, H. 1981. *Boethius: The Consolations of Music, Logic, Theology, and Philosophy*. Oxford: Clarendon Press.
- Charles, D. 2000. *Aristotle on Meaning and Essence*. Oxford: Clarendon Press.
- Chiesa, C. 1986. "Symbole et signe dans le *De interpretatione*." In July 1986, 203–218.
- Clarke, E.C., J.M. Dillion, and J.P. Hershbell, tr. 2003. *Iamblichus. On the Mysteries*. Atlanta: Society of Biblical Literature.
- Clarke, G.W., tr. 1984. *The Letters of St. Cyprian of Carthage*. vol. 4: Letter 67–82. New York: Newman Press.
- Cleary, J.J. 1985. "On the Terminology of 'Abstraction' in Aristotle." *Phronesis* 30:13–45.
- Colish, M.L. 1983. "The Stoic Theory of Verbal Signification and the Problem of Lies and False Statement from Antiquity to St. Anselm." In Brind'Amour et al. 1983, 17–43.
- , 1985. *The Stoic Tradition from Antiquity to the Early Middle Ages*. 2 vols. Leiden: E.J. Brill.
- Cook, H.P., tr. 1962. *The Categories; On Interpretation*. Cambridge, MA.: Harvard University Press.
- Corcoran, J., ed. 1974. *Ancient Logic and its Modern Interpretations*. Dordrecht: D. Reidel.
- Correia, M. 2001. "Boethius on Syllogisms with Negative Premises." *Ancient Philosophy* 21:167–174.
- Courcelle, P. 1935. "Boèce et l'école d'Alexandrie." *Mélanges d'archéologie et d'histoire* 52: 185–223.
- , 1948. *Les lettres grecques en Occident: De Macrobe à Cassiodore*. Paris: E. de Bocard.
- , 1967. *La consolation de philosophie dans la tradition littéraire: Antécédents et postérité de Boèce*. Paris: Études Augustiniennes.
- , 1969. *Late Latin Writers and their Greek Sources*. tr. H.E. Wedeck from Courcelle 1948. Cambridge: Harvard University Press.
- Crome, P. 1970. *Symbol und Unzulänglichkeit der Sprache: Iamblichos – Plotin – Porphyrios – Proklos*. Munich: Wilhelm Fink.
- Dascal, M., D. Gerhardus, K. Lorenz, and G. Meggle, eds. 1992. *Sprachphilosophie. Ein internationales Handbuch zeitgenössischer Forschung*. vol. 1. Berlin: De Gruyter.
- De Libera, A. 1981. "Abélard et le Dictisme." *Cahiers de la Revue de théologie et de philosophie* 6: 59–97.
- , 1996a. *La querelle des universaux: De Platon à la fin du Moyen Age*. Paris: Seuil.
- , 1996b. "Boèce et l'interprétation médiévale des *Catégories*. De la paronymie à la *denominatio*." In Motte et al. 1996, 255–264.
- , 1997. "Substance et existence: Porphyre et Meinong." *Revue de Métaphysique et de Morale* 100: 167–192.
- , 1999. *L'art des généralités*. Paris: Aubier.
- , 2002. *La référence vide: Théories de la proposition*. Paris: Presses Universitaires de France.

- De Rijk, L.M. 1962. *Logica Modernorum*. vol. 1: *On the Twelfth Century Theories of Fallacy*. Assen: Van Gorcum.
- , 1964. "On the Chronology of Boethius' Works on Logic." *Vivarium* 2: 1–49 and 125–162.
- , 1967. *Logica Modernorum*. vol. 2: *The Origin and Early Development of the Theory of Supposition*. 2 vols. Assen: Van Gorcum.
- , ed. 1970. *Dialectica*. Assen: Van Gorcum.
- , 1981. "Boèce logicien et philosophe: ses positions sémantiques et sa métaphysique de l'être." In Obertello 1981, 141–156.
- , 1988. "On Boethius's Notion of Being: A Chapter of Boethian Semantics." In Kretzmann 1988, 1–29; repr., in De Rijk 1989.
- , 1989. *Through Language to Reality: Studies in Medieval Semantics and Metaphysics*. ed. E.P. Bos. Northampton: Variorum.
- , 2002. *Aristotle: Semantics and Ontology*. 2 vols. Leiden: E.J. Brill.
- , 2003a. "Boethius on *De interpretatione* (ch. 3)." In Galonnier 2003, 207–227.
- , 2003b. "The Logic of Indefinite Names in Boethius, Abelard, Duns Scotus, and Radulphus Brito." In Braakhuis *et al.* 2003, 207–233.
- , and H.A.G. Braakhuis, eds. 1987. *Logos and Pragma: Essays on the Philosophy of Language in Honour of Professor Gabriel Nuchelmans*. Nijmegen: Ingenium.
- De Vogel, C.J. 1971. "De Boethiana I." *Vivarium* 9: 49–66.
- Dod, B.G. 1982. "Aristoteles latinus." In Kretzmann *et al.* 1982, 45–79.
- Döring, K., and T. Ebert, eds. 1993. *Dialektiker und Stoiker: Zur Logik der Stoa und ihrer Vorläufer*. Stuttgart: F. Steiner.
- Dürr, K. 1951. *The Propositional Logic of Boethius*. North-Holland: Amsterdam.
- Ebbesen, S. 1981a. *Commentators and Commentaries on Aristotle's Sophistici elenchi: A Study of Post-Aristotelian Ancient and Medieval Writings on Fallacies*. vol. 1: *The Greek Tradition*. Corpus latinum commentariorum in Aristotelem graecorum 7. Leiden: E.J. Brill.
- , 1981b. "Analyzing Syllogisms or Anonymus Aurelianus III—the (presumably) Earliest Extant Latin Commentary on the *Prior Analytics*, and its Greek Model." *Cahiers de l'institut du moyen-âge grec et latin* 37: 1–20; repr., in Ebbesen 2008, 171–185.
- , 1983. "The Odyssey of Semantics from the Stoa to Buridan." In Eschbach *et al.* 1983, 67–85; repr., in Ebbesen 2008, 21–33.
- , 1984. "Semantics: Stoics, Late Ancient, and Medieval." In Oehler 1984, 383–388.
- , 1986. "The Chimera's Diary." In Knuuttila *et al.* 1986, 115–143; repr., in Ebbesen 2008, 35–57.
- , 1987. "Boethius as an Aristotelian Scholar." In Wiesner 1987, 286–311; repr., in Sorabji 1990b with the title "Boethius as an Aristotelian Commentator," 373–391.
- , 1988. "Concrete Accidental Terms: Late Thirteenth-Century Debates about Problems Relating to Such Terms as 'album.'" In Kretzmann 1988, 107–174; repr., in Ebbesen 2009a, 109–151.

- , 1990a. "Porphyry's Legacy to Logic: A Reconstruction." In Sorabji 1990b, 141–171 (originally written as a part of Ebbesen 1981a).
- , 1990b. "Philoponus, 'Alexander' and the Origins of Medieval Logic." In Sorabji 1990b, 445–462; repr., in Ebbesen 2008, 157–170.
- , 1991. "Review of J. Magee's *Boethius on Signification and Mind*." *Vivarium* 29: 150–154.
- , ed. 1995. *Sprachtheorien in Spätantike und Mittelalter*. Tübingen: Gunter Narr.
- , 2003. "Boethius on the Metaphysics of Words." In Galonnier 2003, 257–275; repr., in Ebbesen 2008, 115–128.
- , 2004. "Where were the Stoics in the Late Middle Ages?" In Strange *et al.* 2004, 108–131; repr., in Ebbesen 2008, 59–77.
- , 2005. "Theories of Language in the Hellenistic Age and in the Twelfth and Thirteenth Centuries." In D. Frede *et al.* 2005, 299–319; repr., in Ebbesen 2008.
- , 2007. "The Traditions of Ancient Logic-cum-Grammar in the Middle Ages—What's the Problem?" *Vivarium* 45: 136–152.
- , 2008. *Greek-Latin Philosophical Interaction*. vol. 1 of *Collected Essays of Sten Ebbesen*. Aldershot: Ashgate.
- , 2009a. *Topics in Latin Philosophy from the 12th–14th Centuries*. vol. 2 of *Collected Essays of Sten Ebbesen*. Aldershot: Ashgate.
- , 2009b. "The Aristotelian Commentator." In Marenbon 2009, 34–55.
- Eco, U. 1984. "Signification and Denotation from Boethius to Ockham." *Franciscan Studies* 44:1–29.
- Emilsson, E.K. 2007. *Plotinus on Intellect*. Oxford: Clarendon Press.
- Engels, J. 1963. "Origine, sens et survie du terme boécien «*secundum placitum*»." *Vivarium* 1: 87–114.
- Eschbach, A. and J. Trabant, eds. 1983. *History of Semiotics*. Amsterdam: J. Benjamins.
- Everson, S. 1994a. "Epicurus on Mind and Language." In Everson 1994b, 74–108.
- , 1994b. *Language*. Companions to Ancient Thought 3. New York: Cambridge University Press.
- Fait, P. 1996. "Il linguaggio e l'abaco (Aristotele, *Soph. El.* 1, 165a6–17)." In Funghi 1996, 181–190.
- Falcon, A. 2005. "Commentators on Aristotle." In *The Stanford Encyclopedia of Philosophy*, ed. E.N. Zalta, <http://plato.stanford.edu/entries/aristotle-commentators/> (accessed July 7, 2009)
- Fodor, J.A. 1975. *The Language of Thought*. Cambridge, MA: Harvard University Press.
- , 1981. *Representations: Philosophical Essays on the Foundations of Cognitive Science*. Brighton: The Harvester Press.
- , 1987. *Psychosemantics: The Problem of Meaning in the Philosophy of Mind*. Cambridge, MA: The MIT Press.
- , 1998. *Concepts: Where Cognitive Science Went Wrong*. Oxford: Oxford University Press.
- , 2008. *LOT 2: The Language of Thought Revisited*. Oxford: Oxford University Press.



- Forbes, C.A. 1970. *Firmicus Maternus, The Error of the Pagan Religions*. New York: Newman Press.
- Frede, D. 2009. "Alexander of Aphrodisias." In *The Stanford Encyclopedia of Philosophy*, ed. E.N. Zalta, <http://plato.stanford.edu/entries/alexander-aphrodisias/> (first ed. 2003, accessed July 13, 2009).
- Frede, D., and B. Inwood, eds. 2005. *Language and Learning: Philosophy of Language in the Hellenistic Age*. Cambridge: Cambridge University Press.
- Frede, M. 1974. *Die stoische Logik*. Göttingen: Vandenhoeck & Ruprecht.
- , 1977. "The Origins of Traditional Grammar." In Butts *et al.* 1977, 51–79; repr., in Frede 1987, 338–359.
- , 1978. "Principles of Stoic Grammar." In Rist 1978, 27–75; repr., in Frede 1987, 301–337.
- , 1980. "The Original Notion of Cause." In Schofield *et al.* 1980; repr., in Frede 1987, 125–150.
- , 1987. *Essays in Ancient Philosophy*. Oxford: Clarendon Press.
- , 1994. "The Stoic Notion of a *Lekton*." In Everson 1994, 109–128.
- , 2011. *A Free Will: Origins of the Notion in Ancient Thought*. Berkeley: University of California Press.
- Frede, M., and G. Striker, eds. 1996. *Rationality in Greek Thought*. Oxford: Clarendon Press.
- Frege, G. 1962. *Grundgesetze der Arithmetik*. 2 unveränderte Aufl. Hildesheim: G. Olms.
- , 1969. *Nachgelassene Schriften*. Hamburg: F. Meiner. [NS]
- , 1976. *Wissenschaftlicher Briefwechsel*. Hamburg: F. Meiner.
- , 1979. *Posthumous Writings*, eds. H. Hermes, F. Kambartel, and F. Kaulbach. tr. P. Long and R. White. Oxford: Blackwell. [PW]
- , 1988. *Die Grundlagen der Arithmetik*. Hamburg: Felix Meiner.
- Fuhrmann, M., and J. Gruber, eds. 1984. *Boethius*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Funghi, M.S., ed. 1996. *ΟΛΟΙ ΔΙΖΗΣΙΟΣ. Le vie della ricerca*. Florence: Leo S. Olschki.
- Furley, D.J. and A. Nehamas, eds. 1994. *Aristotle's Rhetoric: Philosophical Essays*. Princeton: Princeton University Press.
- Furth, M., tr. 1967. *The Basic Laws of Arithmetic*. Berkeley and Los Angeles: University of California Press.
- Galonnier, A., ed. 2003. *Boèce ou la chaîne des savoirs*. Louvain: Peeters.
- Gaskin, R. 2001a. "Ockham's Mental Language, Connotation, and the Inherence Regress." In Perler 2001, 227–263.
- , ed. 2001b. *Grammar in Early Twentieth-Century Philosophy*. London: Routledge.
- , 2009. *The Unity of the Proposition*. Oxford: Oxford University Press.
- Geach, P.T. 1972. *Logic Matters*. Berkeley: University of California Press.
- Gersh, S. 1986. *Middle Platonism and Neoplatonism. The Latin Tradition*. 2 vols. Notre Dame: Notre Dame University Press.
- Gerson, L. 2010. *The Cambridge History of Philosophy in Late Antiquity*. 2 vols. Cambridge: Cambridge University Press.
- Gibson, M., ed. 1981. *Boethius, his Life, Thought and Influence*. Oxford: Blackwell.



- Gibson, M.I. 2004. *From Naming to Saying: The Unity of the Proposition*. Oxford: Blackwell.
- Gilbert, N.W. 1963. "The Concept of Will in Early Latin Philosophy." *Journal of the History of Philosophy* 1: 17–35.
- Gildersleeve, B.L., and G. Lodge. 1895. *Latin Grammar*. Revised edition. Bristol: Bristol Classical Press.
- Glucker 1995. "Probabile, Veri Simile, and Related Terms." In Powell 1995c, 115–143.
- Goulet, R. 1978. "La classification stoïcienne des propositions simples selon Diogènes Laërce VII 69–70." In Brunschwig 2004, 193–217.
- Gourinat, J-B. 1999. "Le définition et les propriétés de la proposition dan le stoïcisme ancien." In Büttgen *et al.* 1999, 133–150.
- , 2000. *La dialectique des stœiciens*. Paris: J. Vrin.
- Graeser, A. 1972. *Plotinus and the Stoics: A Preliminary Study*. Leiden: E.J. Brill.
- , 1978. "The Stoic Theory of Meaning." In Rist 1978, 77–100.
- Green-Pedersen, N.J. 1984. *The Tradition of the Topics in the Middle Ages: The Commentaries on Aristotle's and Boethius' 'Topics'*. Munich, Vienna: Philosophia Verlag.
- Grice, P. 1989. *Studies in the Ways of Words*. Cambridge, MA: Harvard University Press.
- Guillaumin, J.-Y., tr. 1995. *Boèce. Institution arithmétique*. Paris: Les Belles Lettres.
- Hackstaff, L.H. 1966. *Systems of Formal Logic*. Dordrecht: D. Reidel.
- Hadot, P. 1959. "Un fragment du commentaire perdu de Boèce sur les *Catégories* d'Aristote dans le Codex Bernensis 363." *Archives d'histoire doctrinale et littéraire du moyen âge* 26: 11–27.
- , 1971. *Marius Victorinus: Recherches sur sa vie et ses œuvres*. Paris: Études Augustiniennes.
- , 1980. "Sur divers sens du mot *pragma* dans la tradition philosophique grecque." In Aubenque 1980, 309–319.
- Hankinson, R.J., ed. 2008. *The Cambridge Companion to Galen*. Cambridge: Cambridge University Press.
- Hasnaoui, C. 2003. "La tradition des commentaires grecs sur le *De interpretatione* (PH) d'Aristote jusqu'au VII<sup>e</sup> s." *Dictionnaire des Philosophes antiques*, supplément, 122–173.
- Heilmann, A. 2007. *Boethius' Musiktheorie und das Quadrivium*. Vandenhoeck & Ruprecht.
- Heiser, J.H. 1991. *Logos and Language in the Philosophy of Plotinus*. Lewiston: The Edwin Mellen Press.
- Hirschle, M. 1979. *Sprachphilosophie und Namenmagie im Neuplatonismus*. Meisenheim: Anton Hain.
- Hoenen, M. and L. Nauta. 1997. *Boethius in the Middle Ages: Latin and Vernacular Traditions of the Consolatio Philosophiae*. Leiden: E.J. Brill.
- Hoffmann, P. 1999. "Les analyses de l'énoncé: catégories et parties du discours selon les commentateurs néoplatoniciens." In Büttgen *et al.* 1999, 209–248.
- Holtz, L. 1981. *Donat et la tradition de l'enseignement grammatical: Études sur l'Art Donati et sa diffusion (IVe–IXe siècle) et édition critique*. Paris: CNRS.

- Hume, D. 1978. *A Treatise of Human Nature*. ed. L.A. Selby-Bigge; revised by P.H. Nidditch. Oxford: Oxford University Press. [*Treatise*]
- Husson, S. 2009a. "Note sur le texte grec du *Peri hermeneias* 16b20–25 et sa tradition." In Husson 2009b, 133–139.
- , ed. 2009b. *Interpréter le De Interpretatione*. Paris: J. Vrin.
- Ildefonse, F. 1997. *La naissance de la grammaire dans l'antiquité grecque*. Paris: J. Vrin.
- Inwood, B., ed. 2003. *The Cambridge Companion to the Stoics*. Cambridge: Cambridge University Press.
- Irwin, T.H. 1982. "Aristotle's Concept of Signification." In Schofield *et al.* 1982, 240–266.
- Isaac, J. 1953. *Le Peri hermeneias en occident de Boèce a saint Thomas: Histoire littéraire d'un traité d'Aristote*. Paris: J. Vrin.
- Iwakuma, Y. 1992. "Vocales, or Early Nominalists." *Traditio* 47: 37–111.
- , 1997. "Enuntiabilia in Twelfth-Century Logic and Theology." In Marmo 1997, 19–36.
- Jackson, B.D. 1969. "The Theory of Signs in St. Augustine's *De doctrina christiana*." *Revue des études augustinienes* 15: 9–49; repr., in Markus 1972, 92–147.
- Jacobi, K. 1986. "Peter Abelard's Investigations into the Meaning and Functions of the Speech Sign 'Est'." In Knuuttila *et al.* 1986, 145–180.
- Johanson, C., and D. Londey. 1988. "Cicero on Propositions: *Academica* II.95." *Mnemosyne* 41: 325–332.
- Joly, H., ed. 1986. *Philosophie du langage et grammaire dans l'antiquité*. Brussels: Ousia.
- Joost-Gaugier, C.L. 2006. *Measuring Heaven: Pythagoras and His Influence on Thought and Art in Antiquity and the Middle Ages*. Ithaca and London: Cornell University Press.
- Kahn, C.H. 1972. "On the Terminology for Copula and Existence." In Stern *et al.* 1972, 141–158; repr., in Kahn 2009, 41–61.
- , 1973. *The Verb Be in Ancient Greek*. Dordrecht: D. Reidel.
- , 2001. *Pythagoras and the Pythagoreans: A Brief History*. Indianapolis: Hackett.
- , 2009. *Essays on Being*. Oxford: Oxford University Press.
- Karamanolis, G.E. 2004. "Porphyry: The First Platonist Commentator on Aristotle." In Adamson *et al.* 2004, 97–120.
- , 2006. *Plato and Aristotle in Agreement?: Platonists on Aristotle from Antiochus to Porphyry*. Oxford: Oxford University Press.
- Kaster, R. 1988. *Guardians of Language: The Grammarian and Society in Late Antiquity*. Berkeley: University of California Press.
- Kelly, J.N.D. 1972. *Early Christian Creeds*. New York: David McKay.
- Kelly, L.J. 2002. *Mirror of Grammar: Theology, Philosophy and the Modistae*. Amsterdam: John Benjamins.
- King, P. 2004. "Metaphysics." In Brower *et al.* 2004, 65–125.
- , 2011. "Boethius's Anti-realist Arguments." *Oxford Studies in Ancient Philosophy* 40: 381–401.
- Kirkby, H. 1981. "The Scholar and His Public." In Gibson 1981, 44–72.

- Klingner, F. 1921. *De Boethii Consolatione Philosophiae*. Berlin: Weidmannsche Buchhandlung.
- Kneale, W., and M. Kneale. 1962. *The Development of Logic*. Oxford: Clarendon Press.
- Kneepkens, C.H. 1985. "Roger Bacon's Theory of the Double *Intellectus*: A Note on the Development of the Theory of *Congruitas* and *Perfectio* in the First Half of the Thirteenth Century." In Lewry 1985, 115–143.
- , 1994. "From Eternal to Perpetual Truths: A Note on the Mediaeval History of Aristotle, *De Interpretatione*, ch. 1, 16a18." *Vivarium* 32: 161–185.
- Knuuttila, S., and J. Hintikka, eds. 1986. *The Logic of Being: Historical Studies*. Dordrecht: D. Reidel.
- Kretzmann, N. 1967. "Semantics, History of." In *The Encyclopedia of Philosophy*, vol. 7, ed. P. Edwards, New York: Macmillan, 358–406.
- , 1970. "Medieval Logicians on the Meaning of the *Propositio*." *Journal of Philosophy* 67: 767–787.
- , 1974. "Aristotle on Spoken Sound Significant by Convention." In Corcoran 1974, 3–21.
- , 1987. "Boethius and the Truth about Tomorrow's Sea Battle." In De Rijk *et al.* 1987, 63–97; repr., in Blank *et al.* 1998, 24–52.
- , ed. 1988. *Meaning and Inference in Medieval Philosophy*. Dordrecht: Kluwer.
- Kretzmann, N., A. Kenny, and J. Pinborg, eds. 1982. *The Cambridge History of Later Medieval Philosophy*. Cambridge: Cambridge University Press.
- Lallot, J. 2003. "À propos des syncatégorèmes: consignification et signification adjacente dans la tradition logico-grammaticale grecque." *Histoire Épistémologie Langage* 25–2: 9–32.
- Larkin, M.T. 1971. *Language in the Philosophy of Aristotle*. The Hague: Mouton.
- Lav, V. 2003. *The History of Linguistics in Europe: From Plato to 1600*. Cambridge: Cambridge University Press.
- Lee, T.-S. 1984. *Die griechische Tradition der aristotelischen Syllogistik in der Spätantike: eine Untersuchung über die Kommentare zu den *analytica priora* von Alexander Aphrodisiensis, Ammonius und Philoponus*. Göttingen: Vandenhoeck & Ruprecht.
- Lenz, M. 2003. *Mentale Sätze: Wilhelm von Ockhams Thesen zur Sprachlichkeit des Denkens*. Stuttgart: Franz Steiner.
- Lepore, E., and B.C. Smith, eds. 2006. *The Oxford Handbook of Philosophy of Language*. Oxford: Oxford University Press.
- Levet, J.-P. 1988. "Philologie et logique: Boèce traducteur des premiers chapitres du livre I des *Analytica priora* d'Aristote." *Revue d'histoire des textes* 18:1–62.
- Lewry, O., ed. 1985. *The Rise of British Logic*. Toronto: Pontifical Institute of Mediaeval Studies.
- Lieb, H.H. 1981. "Das 'semiotische Dreieck' bei Ogden und Richards: Eine Neuformulierung des Zeichenmodells von Aristoteles." In Trabant 1981, 137–156.
- Linsky, L. 1992. "The Unity of the Proposition." *Journal of the History of Philosophy* 30: 243–273.

- Lloyd, A.C. 1955–1956. “Neoplatonic Logic and Aristotelian Logic.” *Phronesis* 1: 58–72; 146–160.
- , 1990. *The Anatomy of Neoplatonism*. Oxford: Oxford University Press.
- Longey D. and C. Johanson. 1987. *The Logic of Apuleius*. Leiden: E.J. Brill.
- Long, A.A. 1971. *Problems in Stoicism*. London: The Athlone Press.
- , 1995. “Cicero’s Plato and Aristotle.” In Powell 1995c, 37–61.
- Lucas, D.W. 1968. *Aristotle Poetics*. Oxford: Clarendon Press.
- Luhtala, A. 2005. *Grammar and Philosophy in Late Antiquity*. Amsterdam: John Benjamins.
- Magee, J.C. 1986. “Truth, Discourse and Mind in Boethius.” Ph.D. Dissertation, University of Toronto.
- , 1989. *Boethius on Signification and Mind*. Leiden: E.J. Brill.
- , ed. and tr. 1998. *De divisione liber: Critical Edition, Translation, Prolegomena, and Commentary*. Leiden: E.J. Brill.
- , 2008. “Boethius, Last of the Romans.” *Carmina Philosophiae* 17–1: 1–22.
- , 2010a. “On the Composition and Sources of Boethius’ Second *Peri Hermeneias* Commentary.” *Vivarium* 48: 7–54.
- , 2010b. “Boethius.” In Gerson 2010, 2: 788–812.
- , and J. Marenbon. 2009. “Boethius’ Works.” In Marenbon 2009, 303–310.
- Maierù, A. 1972. *Terminologia Logica della Tarda Scolastica*. Rome: Ateneo.
- , and L. Valente, eds. 2004. *Medieval Theories on Assertive and Non-Assertive Language*. Florence: Leo S. Olschki.
- Manetti, G. 1993. *Theories of the Sign in Classical Antiquity*. Bloomington and Indianapolis: Indiana University Press. tr. C. Richardson from *Le teorie del segno nell’antichità classica*, Milan: Fabbri, Bompiani, Sonzongo and Etas, 1987.
- , ed. 1996. *Knowledge through Signs: Ancient Semiotic Theories and Practices*. Turnhout: Brepols.
- Marenbon, J. 1993. “Medieval Latin Commentaries and Glosses on Aristotelian Logical Texts, Before c. 1150 A.D.” In *Glosses and Commentaries on Aristotelian Logical Texts: The Syriac, Arabic and Medieval Latin Traditions*, ed. C. Burnett (Warburg Institute Surveys and Texts 23) London, 77–127; repr., in Marenbon 2000.
- , 1997a. *The Philosophy of Peter Abelard*. Cambridge: Cambridge University Press.
- , 1997b. “Glosses and Commentaries on the *Categories* and *De interpretatione* before Abelard.” In *Dialektik und Rhetorik im früheren und hohen Mittelalter*, ed. J. Fried (*Schriften des Historischen Kollegs, Kolloquien* 27) Munich, 21–49; repr., in Marenbon 2000.
- , 2000. *Aristotelian Logic, Platonism, and the Context of Early Medieval Philosophy in the West*. Aldershot: Ashgate.
- , 2003. *Boethius*. New York: Oxford University Press.
- , ed. 2009. *The Cambridge Companion to Boethius*. Cambridge: Cambridge University Press.
- Marmo, C., ed. 1997. *Vestigia, Imagines, Verba: Semiotics and Logic in Medieval Theological Texts (XIIth–XIVth Century)*. Turnhout: Brepols.

- Markus, R.A. 1957. "St. Augustine on Signs." *Phronesis* 2: 60–83; repr., in Markus 1972, 61–91.
- , ed. 1972. *Augustine: A Collection of Critical Essays*. New York: Anchor Books.
- Marrou, H.-I. 1948. *Histoire de l'éducation dans l'Antiquité*. 2 vols. Paris: Seuil.
- , 1956. *A History of Education in Antiquity*. tr. G. Lamb. London: Sheed and Ward; translated from Marrou 1948.
- , 1983. *Saint Augustin et la fin de la culture antique*. Paris: De Boccard.
- Martin, C. 1987. "Something Amazing about the Peripatetic of Pallet: Abaelard's Development of Boethius' Account of Conditional Propositions." *Argumentation* 1: 419–436.
- , 1991. "The Logic of Negation in Boethius." *Phronesis* 33: 277–304.
- , 1999. "Non-Reductive Arguments from Impossible Hypotheses in Boethius and Philoponus." *Oxford Studies in Ancient Philosophy* 17: 279–302.
- , 2007. "Denying Conditionals: Abaelard and the Failure of Boethius' Account of the Hypothetical Syllogism." *Vivarium* 45: 153–168.
- , 2009. "The Logical Textbooks and their Influence." In Marenbon 2009, 56–84.
- , 2010. "Imposition and Essence: What's New in Abaelard's Theory of Meaning?" In Shimizu *et al.* 2010, 173–214.
- Masi, M., ed. 1981. *Boethius and the Liberal Arts: A Collection of Essays*. Berne: Peter Lang.
- Mates, B. 1953. *Stoic Logic*. Berkeley: University of California Press.
- McLelland, N., and A. Linn, eds. 2005. *Flores Grammaticae: Essays in Memory of Vivien Law*. Münster: Nodus.
- Meier-Oeser, S. 1997. *Die Spur des Zeichens: Das Zeichen und Seine Funktion in der Philosophie des Mittelalters und der frühen Neuzeit*. Berlin: Walter de Gruyter.
- Minio-Paluello, L. 1957. "Les traductions et les commentaires aristotéliciennes de Boèce." *Studia Patristica II, Text und Untersuchungen zur Geschichte der altchristlichen Literatur* 64, 358–365; repr., in Minio-Paluello 1972, 328–335.
- , 1958. "Note sull'Aristotele Latino Medievale." *Rivista di Filosofia Neo-Scolastica* 50: 97–222; repr., in Minio-Paluello 1972, 357–387.
- , ed. 1962. *Analytica Priora*. AL III 1–4, Bruges: Desclée de Brouwer.
- , ed. 1965. *De interpretatione vel Periermenias*. AL II 1–2, Bruges: Desclée de Brouwer.
- , 1972. *Opuscula: The Latin Aristotle*. Amsterdam: Adolf M. Hakkert.
- Modrak, D.K. 2001. *Aristotle's Theory of Language and Meaning*. Cambridge: Cambridge University Press.
- Montanari, E. 1984. *La Sezione linguistica del Peri Hermeneias di Aristotele*. vol. 1: *Testo*. Florence: Università degli studi di Firenze.
- , 1988. *La Sezione linguistica del Peri Hermeneias di Aristotele*. vol. 2: *Commento*. Florence: Università degli studi di Firenze.
- Morau, P. 1973–2001. *Der Aristotelismus bei den Griechen*. 3 vols. Berlin: De Gruyter.

- Motte, A. and J. Denooz, eds. 1996. *Aristotelica secunda: Mélanges offerts à Christian Rutten*. Liege: Université de Liège.
- Murat, A. 2004. "The Language of Thought Hypothesis." In *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, <http://plato.stanford.edu/entries/language-thought/> (accessed October 13, 2005).
- Müri, W. 1931. "ΣΥΜΒΟΛΟΝ. Wort- und Sachgeschichtliche Studie." Beilage zum Jahresbericht über das Städtische Gymnasium in Bern I–III: 1–46; repr., in *Griechische Studien: Ausgewählte Wort- und Sachgeschichtliche Forschungen zur Antike*, ed. E. Vischer, Basel: Friedrich Reinhardt, 1976, 1–44.
- Murphy, J.J. 1990. "Topos and Figura: Historical Cause and Effect?" In Bursill-Hall et al. 1990, 239–253.
- Nuchelmans, G. 1973. *Theories of the Proposition. Ancient and Medieval Conceptions of the Bearers of Truth and Falsity*. Amsterdam: North-Holland.
- , 1992. *Secundum/Tertium adiacens: Vicissitudes of a Logical Distinction*. Amsterdam: North-Holland.
- Obertello, L., ed and tr. 1969. *De hypotheticis syllogismis*. Brescia: Paideia.
- , 1974. *Severino Boezio*. 2 vols. Genova: Accademia Ligure di scienze e lettere.
- , ed. 1981. *Atti del Congresso internazionale di studi boeziani: Pavia, 5–8 ottobre 1980*. Rome: Herder.
- O'Callaghan, J.P. 2003. *Thomist Realism and the Linguistic Turn: Toward a More Perfect Form of Existence*. Notre Dame: University of Notre Dame Press.
- O'Daly, G. 1993. "Sense-Perception and Imagination in Boethius: *Philosophiae Consolatio* 5 m. 4." In *Philanthropia kai Eusebeia: Festschrift für Albrecht Dihle zum 70. Geburtstag*, eds. G.W. Most, H. Petersmann, and A.M. Ritter. Göttingen: Vandenhoeck & Ruprecht, 327–340; repr., in O'Daly 2001 with the original pagination.
- , 2001. *Platonism Pagan and Christian: Studies in Plotinus and Augustine*. Aldershot: Ashgate.
- Oehler, K. 1962. *Die Lehre von noetischen und dianoetischen Denken bei Platon und Aristoteles: ein Beitrag zur Erforschung der Geschichte des Bewusstseinsproblems in der Antike*. Munich: Beck.
- , ed. 1984. *Zeichen and Realität*. Tübingen: Stauffenburg.
- Oesterle, J.T., tr. 1962. *Aristotle: On Interpretation. Commentary by St. Thomas and Cajetan (Peri hermeneias)*. Milwaukee: Marquette University Press.
- O'Meara, D.J. 1989. *Pythagoras Revived: Mathematics and Philosophy in Late Antiquity*. Oxford: Clarendon Press.
- Omelyanchik, V. 2003. "Boèce et Ammonius sur la Question d'Alexandre d'Aphrodise (*Peri Hermeneias*, 16a1–2)." In Galonnier 2003, 246–256.
- Panaccio, C. 1996. "Des signes dans l'intellect." *Cahiers d'Épistémologie* (Université du Québec à Montréal) 9603:1–30.
- , 1999. *Le discours intérieur: De Platon à Guillaume d'Ockham*. Paris: Seuil.
- Pasnau, R. 2010. *The Cambridge History of Medieval Philosophy*. 2 vols. Cambridge: Cambridge University Press.
- Patch, H.R. 1933. "Consolatio Philosophiae, IV." *Speculum* 8: 41–51.
- , 1935. "Necessity in Boethius and the Neoplatonists." *Speculum* 10: 393–404.



- Pépin, J. 1985. "ΣΥΜΒΟΛΑ, ΣΗΜΕΙΑ, ὍΜΟΙΩΜΑΤΑ. À propos de *De interpretatione* I, 16a3–8 et *Politique* VIII 5, 1340a6–39." In Wiesner 1985, 22–44.
- Pépin, J. and H.D. Saffrey, eds. 1987. *Proclus: Lecteur et interprète des anciens*. Paris: CNRS.
- Perler, D. 1993. "Duns Scotus on Signification." *Medieval Philosophy and Theology* 3: 97–120.
- , ed. 2001. *Ancient and Medieval Theories of Intentionality*. Leiden: E.J. Brill.
- Pinborg, J. 1972. *Logik und Semantik im Mittelalter: Ein Überblick*. Stuttgart: Frommann-Holzboog.
- , 1975. "Die Logik der Modistae." *Studia Mediewistyczne* 16: 39–97; repr., in Pinborg 1984.
- , 1984. *Medieval Semantics: Selected Studies on Medieval Logic and Grammar*. ed. S. Ebbesen. Variorum: London.
- , 1985. *Die Entwicklung der Sprachtheorie im Mittelalter*. Münster: Aschendorff.
- Polansky, R., and M. Kuczewski. 1990. "Speech and Thought, Symbol and Likeness: Aristotle's *De Interpretatione* 16a3–9." *Apeiron* 23: 51–63.
- Powell, J.G.F. 1995a. "Introduction: Cicero's Philosophical Works and their Background." In Powell 1995c, 1–35.
- , 1995b. "Cicero's Translations from Greek." In Powell 1995c, 273–300.
- , ed. 1995c. *Cicero the Philosopher*. Oxford: Clarendon Press.
- Putnam, H. 1988. *Representation and Reality*. Cambridge: The MIT Press.
- Quine, V.W. 1960. *Word and Object*. Cambridge, MA: The MIT Press.
- Reinhardt, T., ed. and tr. 2003. *Topica*. Oxford: Oxford University Press.
- Reynolds, L.D., ed. 1983. *Texts and Transmission: A Survey of the Latin Classics*. Oxford: Clarendon Press.
- Righi, G. 1984. *AMS Boezio De Syllogismo Cathgorico: Studio sul I libro*. Milan: Marzorati.
- Rist, J.M., ed. 1978. *The Stoics*. Berkeley: University of California Press.
- Robins, R.H. 1951. *Ancient & Medieval Grammatical Theory in Europe*. London: G. Bell & Son.
- , 1997. *A Short History of Linguistics*. London: Longman.
- Rosier, I. 1983. *La grammaire spéculative des Modistes*. Lille: Presses Universitaires de Lille.
- , 1988. "La définition de Priscien de l'énoncé: Les enjeux théoriques d'une variante, selon les commentateurs médiévaux." In Blanche-Benveniste *et al.* 1988, 353–369.
- , 1994. *La parole comme acte*. Paris: J. Vrin.
- , 1995. "Res significata et modus significandi: Les implications d'une distinction médiévale." In Ebbesen 1995, 135–168.
- Rosier-Catach, I. 2003. "Priscien, Boèce, les *Glosulae in Priscianum*, Abélard: Les enjeux des discussions autour de la notion de consignification." *Histoire Épistémologie Langage* 25–2: 55–84.
- , 2004a. *La parole efficace*. Paris: Seuil.
- , 2004b. "Les discussions sur le signifié des propositions chez Abélard et ses contemporains." In Maierù *et al.* 2004, 1–34.

- , 2005. "The *Glosulae in Priscianum* and its Tradition." In McLelland *et al.* 2005, 81–99.
- , 2009. "Sur le verbe substantif, la prédication et la consignification: *Peri Hermeneias* 16b20–25 dans les traductions et commentaires en latin." In Husson 2009b, 97–131.
- Ross, D. 1924. *Aristotle's Metaphysics: A Revised Text with Introduction and Commentary*. vol. 1. Oxford: Clarendon Press.
- , 1964. *Aristotle*. London: Methuen.
- Russell, B. 1937. *The Principles of Mathematics*. Cambridge: Cambridge University Press; repr., London: Routledge, 1992.
- , 1956. *Logic and Knowledge*. London: George Allen & Unwin.
- Sandbach, F.H. 1985. *Aristotle and the Stoics*. Cambridge: Cambridge Philological Society.
- Sapir, E. 1921. *Language: An Introduction to the Study of Speech*. New York: Harcourt, Brace.
- Schenkeveld, D.M. 1984. "Stoic and Peripatetic Kinds of Speech Act and the Distinction of Grammatical Moods." *Mnemosyne* 37: 291–353.
- Schofield, M., M. Burnyeat and J. Barnes, eds. 1980. *Doubt and Dogmatism: Studies in Hellenistic Epistemology*. Oxford: Oxford University Press.
- Schofield, M., and M. Nussbaum, eds. 1982. *Language and Logos*. Cambridge: Cambridge University Press.
- Sedley, D. 1996. "Aristotle's *De interpretatione* and Ancient Semantics." In Manetti 1996, 87–108.
- Shaw, G. 1995. *Theurgy and the Soul: The Neoplatonism of Iamblichus*. University Park: The Pennsylvania State University Press.
- Sheppard, A. 1991. "Phantasia and Mental Images: Neoplatonist Interpretation of *De anima*, 3.3." *Oxford Studies in Ancient Philosophy*, supplementary volume: *Aristotle and the Later Tradition*, eds. H. Blumenthal and H. Robinson, 165–173.
- Shiel, J. 1982. "A Recent Discovery: Boethius' Notes on the *Prior Analytics*." *Vivarium* 20:128–141.
- , 1990. "Boethius' Commentaries on Aristotle." In Sorabji 1990b, 349–372; its earlier versions are in *Medieval and Renaissance Studies* 4 (1958): 217–244; and in Fuhrmann *et al.* 1984, 155–183.
- Shimizu, T. and C. Burnett, eds. 2009. *The Word in Medieval Logic, Theology and Psychology*. Turnhout: Brepols.
- Smith, A, ed. 1993. *Porphyrii philosophi fragmenta*. Stuttgart: Teubner.
- , tr. 2010. *On Aristotle's On Interpretation 1–3*. London: Duckworth.
- Sorabji, R. 1990a. "The Ancient Commentators on Aristotle." In Sorabji 1990b, 1–30.
- , ed. 1990b. *Aristotle Transformed: The Ancient Commentators and their Influence*. Ithaca: Cornell University Press.
- , 1998. "Boethius, Ammonius and their Different Greek Background." In Blank *et al.* 1998, 16–23.
- , 2005. *The Philosophy of the Commentators 200–600 AD: A Sourcebook*. vol. 3: *Logic and Metaphysics*. Ithaca: Cornell University Press.
- Spade, V. 1982. "The Semantics of Terms." In Kretzmann *et al.* 1982, 188–196.



- , 1996. "Boethius against Universals: Arguments in the Second Commentary on Porphyry." <http://pvspade.com/Logic/docs/boethius.pdf> (accessed July 7, 2009).
- , 2002. *Thoughts, Words and Things: An Introduction to Late Medieval Logic and Semantic Theory* (Version 1.1a). [http://pvspade.com/Logic/docs/thoughts1\\_1a.pdf](http://pvspade.com/Logic/docs/thoughts1_1a.pdf) (accessed July 7, 2009).
- Specia, A. 2001. *Hypothetical Syllogistic and Stoic Logic*. Leiden: E.J. Brill.
- Spruyt, J. 2003. "The Semantics of Complex Expressions in John Duns Scotus, Peter Abelard and John Buridan." In Braakhuis *et al.*, 275–303.
- Stahl, W.H., R. Johnson and E.L. Burge, 1971. *Martianus Capella and the Seven Liberal Arts*. vol. 1: *The Quadrivium of Martianus Capella*. New York: Columbia University Press.
- Steinthal, H. 1890. *Geschichte der Sprachwissenschaft: Bei den Griechen und Römern mit besonderer Rücksicht auf die Logik*. vol. 1. Berlin: Dümmlers.
- Stern, S.M., A. Hourani and V. Brown, eds. 1972. *Islamic Philosophy and the Classical Tradition*. Columbia: University of South Carolina Press.
- Strange, S.K. and J. Zupko, eds. 2004. *Stoicism: Traditions and Transformations*. Cambridge: Cambridge University Press.
- Strub, C. 2003. "Propositio una/multiplex in Abelard: A Note on Relationship of Dialectic and Grammar." In Braakhuis *et al.*, 257–273.
- Stump, E. 1974. "Boethius's Works on the Topics." *Vivarium* 12: 77–93.
- , tr. 1978. *Boethius's De topicis differentiis*. Ithaca: Cornell University Press.
- , 1982. "Topics: Their Developments and Absorption into Consequences." In Kretzmann *et al.* 1982, 273–299.
- , 1987. "Boethius's *In Ciceronis Topica* and Stoic Logic." In Wippel 1987, 1–22.
- , tr. 1988. *Boethius's In Ciceronis Topica*. Ithaca: Cornell University Press.
- , 1989. *Dialectic and its Place in the Development of Medieval Logic*. Ithaca: Cornell University Press.
- Sullivan, M.W. 1967. *Apuleian Logic: The Nature, Sources and Influence of Apuleius's Peri Hermeneias*. Amsterdam: North-Holland.
- Taylor, D. 1987a. "Rethinking the History of Language Science in Classical Antiquity." In Taylor 1987b, 1–16.
- , ed. 1987b. *The History of Linguistics in the Classical Period*. Amsterdam: John Benjamins.
- Temporini, H. and W. Hasse, eds. 1987. *Aufstieg und Niedergang der römischen Welt*. Part II, vol. 36.2. Berlin: De Gruyter.
- Thörnqvist, T.C., ed. and tr. 2008a. *De syllogismo categorico*. Gothenburg: University of Gothenburg Press.
- , ed. 2008b. *Introductio ad syllogismos categoricos*. Gothenburg: University of Gothenburg Press.
- Tisserand, A. 2008. *Pars theologica: Logique et théologique chez Boèce*. Paris: J. Vrin.
- Todd, R.B. 1976a. *Alexander of Aphrodisias on Stoic Physics: A Study of the De mixtione with Preliminary Essays, Text, Translation and Commentary*. Leiden: Brill.

- , 1976b. "Alexander of Aphrodisias on *De interpretatione* 16a26–29." *Hermes* 104: 140–146.
- Trabant, J., ed. 1981. *Logos Semantikos*. vol. 1. Madrid and Berlin: Gredos and Walter de Gruyter.
- Tweedale, M. 1976. *Abailard on Universals*. Amsterdam: North-Holland.
- Van Den Berg, R.M. 2001. *Proclus' Hymns: Essays, Translations, Commentary*. Leiden: E.J. Brill.
- , 2004. "Smoothing Over the Differences: Proclus and Ammonius on Plato's *Cratylus* and Aristotle's *De Interpretatione*." In Adamson *et al.* 2004, 191–201.
- , 2008. *Proclus' Commentary on the Cratylus in Context: Ancient Theories of Language and Naming*. Leiden: E.J. Brill.
- Verbeke, G. 1978. "La philosophie du signe chez les stoïciens." In Brunschwig 2006, 261–282.
- Verrycken, K. 1990. "The Metaphysics of Ammonius son of Hermeias." In Sorabji 1990b, 199–231.
- Waitz, T. 1844. *Aristotelis Organon Graece*. Pars 1: *Categoriae, Hermeneutika, Analytica priora*. Leipzig: Hahn.
- Wallis, R.T. 1972. *Neoplatonism*. New York: C. Scribner's.
- Weidemann, H. 1982. "Ansätze zu einer semantischen Theorie bei Aristoteles." *Zeitschrift für Semiotik* 4: 241–257.
- , 2002. *Aristoteles. Peri Hermeneias*. Berlin: Akademie.
- Werner, O. 1997. "Saper-Whorf Hypothesis." In *Concise Encyclopedia of Philosophy of Language*, ed. P.V. Lamarque, Oxford: Pergamon, 76–83.
- Whitaker, C.W.A. 1996. *Aristotle's De interpretatione: Contradiction and Dialectic*. Oxford: Clarendon Press.
- Whorf, B.L. 1956. *Language, Thought and Reality*. Cambridge: The MIT Press.
- Wiesner, J., ed. 1985. *Aristoteles, Werk und Wirkung*. vol. 1: *Aristoteles und seine Schule*. Berlin: Walter de Gruyter.
- , ed. 1987. *Aristoteles, Werk und Wirkung*. vol. 2: *Kommentierung, Überlieferung, Nachleben*. Berlin: Walter de Gruyter.
- Wippel, J.F., ed. 1987. *Studies in Medieval Philosophy*. Washington D.C.: The Catholic University Press.
- Wittgenstein, L. 1953. *Philosophische Untersuchungen = Philosophical Investigations*. ed. and tr. G.E.M. Anscombe, Oxford: Blackwell.
- Zambon, M. 2002. *Porphyre et le moyen-platonisme*. Paris: J. Vrin.

### 3. Dictionaries, Fragments or Excerpt Collections and Reference Books

- Aland, G., and B. Aland, eds. 1979. *Novum Testamentum Graece et Latine*. Stuttgart: Deutsche Bibelgesellschaft.
- Beaney, M., ed. 1997. *The Frege's Reader*. Oxford: Blackwell.
- Blaise, A. 1954. *Dictionnaire latin-français des auteurs chrétiens*. Turnhout: Brepols.

- Cassin, B., ed. 2004. *Vocabulaire européen des philosophies*. Paris: Seuil and Le Robert.
- Glare, P.G.W., ed. 1996. *Oxford Latin Dictionary*. Oxford: Clarendon Press.
- Goulet, R. 1989–. *Dictionnaire des philosophes antiques*. Paris: CNRS.
- Kretzmann, N. and E. Stump, eds. 1988. *The Cambridge Translations of Medieval Philosophical Texts*. vol. 1: *Logic and the Philosophy of Language*. Cambridge: Cambridge University Press.
- Lewis, C.T., and C. Short. 1879. *A Latin Dictionary*. Oxford: Clarendon Press.
- Liddell, H.G. and R. Scott. 1996. *A Greek-English Lexicon*. New York: Oxford University Press.
- Long, A.A., and D.N. Sedley, eds. 1987. *The Hellenistic Philosophers*. 2 vols. Cambridge: Cambridge University Press. [LS]
- Hornblower, S., and A. Spawforth, eds. 2003. *The Oxford Classical Dictionary*. Revised Third Edition. Oxford: Oxford University Press.
- Hülser, K., ed. 1987–1988. *Die Fragmente zur Dialektik der Stoiker: Neue Sammlung der Texte mit deutscher Übersetzung und Kommentaren*. 4 vols. Stuttgart: Frommann-Holzboog. [FDS]
- Sharples, R.W. 2010. *Peripatetic Philosophy, 200 BC to AD 200: An Introduction and Collection of Sources in Translation*. Cambridge: Cambridge University Press.
- Sorabji, R., ed. 2005. *The Philosophy of the Commentators 200–600 AD*. See Sorabji 2005 in § 2.
- Von Arnim, H., ed. 1903–1924. *Stoicorum Veterum Fragmenta*. 4 vols. Leipzig: Teubner. [SVF]

#### 4. Electronic Databases

- Corpus Grammaticorum Latinorum: <http://kaali.linguist.jussieu.fr/CGL/index.jsp>
- Library of Latin Texts. Turnhout: Brepols. (available also in CD-ROMs)
- Patrologia Latina Database. Ann Arbor: ProQuest. (available also in CD-ROMs)
- Thesaurus Linguae Graecae. Irvine: University of California Irvine.
- Thesaurus Linguae Latinae. Berlin: K.G. Saur. (available also in CD-ROMs and in paper-format)



## INDEX OF ANCIENT AND MEDIEVAL TEXTS

For details on the editions and the abbreviations of each work, see the bibliography (§§ 1–2), pp. 237–266.

This index refers to the page and footnote number in which the reference occurs. Thus Boethius' *On Categorical Syllogism* is mentioned in note 27 on page 6 with no specific reference, and the lines 20–25 on page 6 of Boethius' second commentary on *Peri hermeneias* is mentioned in note 34 on page 8.

Numbers in bold indicate my English translation and citation of the original (Latin or Greek) text. Thus Boethius' first commentary on *Peri hermeneias*, from line 27 on page 41 to line 24 on page 42, is translated on page 71 and the Latin text is found in note 123.

### ABELARD

#### *Dialectica*

117.26–28      139n115

II, 161.9–14      189n6

#### *In PH*

362.14–34      195n32

365.34–36      18n9

### ALEXANDER OF APHRODISIAS

#### *In Met.*

241.8–9      206n71

241.21–22      206n71

242.10–12      206n71

#### *In PrA*

3.4–29      127n58

7.1      165n82

11.20      165n82, 166n89

11.31–32      31n69, 193n29

14.28–29      172n118

15.1–3      172n119

15.15–22      199n47

15.17–21      217n126

15.37–38      216n124

16.7–8      198n43

17.30      165n82

160.32      30n66

264.33      66n89

#### *Quaestiones*

III, 11, 100.25–101.8

73n129

### AMBROSE [Ps]

#### *Explanatio symboli*

§ 2 = PL, 1155c      55n50

### AMMONIUS

#### *In Cat.*

11.7–12.1      130n63

#### *In Isag.*

48.24–49.5      158n45

81.23–82.1      158n45

#### *In PH*

6n25, 6n27, 14,

33n84, 69n112,

91n59, 105,

135n97, 189,

191, 201n53, 235

2.9–25      154n23

2.26–3.6      154n26, 232n58

3.7–8      154n26

4.18–24      63n88

5.18–19      111n134

5.28–6.14      30n66, 63n85

6.9      232n57

6.14–23      30n66

7.32–8.4      172n119

11.1–7      125n47

12.24–13.17      125n48

12.25      126n52

12.27–28      182n171

15.1–4      126n53

15.22–30      155n30

16.24–27      99n90

AMMONIUS, *In PH* (continued)

17.24-26	31n72
17.24-28	28n48
18.5-6	98n87
18.6	35n89
18.26-27	96n70
18.30-33	224n7
19.34	51n38
20.3-6	30n63
20.6-8	75n135
21.21-33	37n97
21.30-31	34n87
22.12-15	77n2
22.27	99n90
22.27-23.2	67n106, 129n61
23.12-15	78n6
23.20-22	81n20
24.19-21	81n20
24.24-29	107n120
30.8-12	9n37
30.31-32	69n113
32.3-7	133n81
38.33	44n6
39.29-32	149n154
42.30-43.3	137n104
45.29-31	176n144
48.6-9	133n84, 133n88
50.15-19	176n144
51.11	44n6
55.12-13	213n102
55.17-28	213n107
55.20	205n68
55.23-24	213n103
55.28-30	214n108
55.29-30	205n68
55.31-56.2	213n105
56.5	214n111
56.6-7	214n109
56.9	214n110
56.16-17	215n112
56.20-21	215n114
56.23-24	215n113
56.24	205n68
56.24-25	215n114
56.25-28	215n115
57.1-6	215n116
57.4-6	214n111

57.6-8	215n117
57.8	216n120
57.8-9	215n118
57.11-13	216n119
57.25-28	216n122
57.28-29	216n123
57.29-31	126n125
62.11-12	152n3
62.21-63.26	73n129
67.13	165n82
73.5	156n39
73.17	156n39
75.12	182n174
165.5-10	212n98
165.10-16	212n99
165.17-21	197n40
166.2-5	198n46

*In PrA*

1.8-9	31n72
8.15-11.21	127n58
8.20-25	127n58
10.38-11.20	127n58
29.20-23	165n82

## ANSELM

*Monologion*, ch.10 91n57

## APOLLONIUS DYSCOLUS

*De coniunctione*

214.4-6	139n114
---------	---------

*De constructione*

I, §§ 13-29, 15.6-27.16	121n26
I, § 31, 29.4-5	118n10
III, § 124, 375.4	140n116
III, § 124, 375.6	140n116

## APULEIUS

*PH*

IV 192.1-6	143n130
	125n48,
	126n50
IV 192.6-12	142n126
XIII 212.4-10	148n126
XIII 212.4-12	148n150

## ARISTOTLE

- Cat.*  
 ch. 1, 1a14 3, 4, 5, 24, 63  
 ch. 6, 4b33 **119n18**  
 ch. 7, 7b24-25 92n61  
 ch. 7, 8a11-12 205n68  
 ch. 7, 8a11-12 97n79
- DA*  
 II, ch. 8, 420b27-29 109  
**119n18**  
 III, ch. 3, 427b20-23 36n94  
 III, ch. 3, 428a19-24 111n136  
 III, ch. 4, 429a13-18 63n85  
 III, ch. 4, 429a15 98n89  
 III, ch. 4, 430a1 109n126  
 III, ch. 8, 432 a10-14 29n61, 110n132  
 III, ch. 8, 432a12 64n89  
 III, ch. 11, 434a10-11 36n94
- EN*  
 ch. 5, 1133a30-31 68n108
- Fr.*  
 87 [76] 29n59
- GA*  
 I, ch. 18, 722b10 **46n15**  
 V, ch. 7, 787b21-22 99n90
- Met.*  
 III, ch. 2, 998a4-6 50n32  
 IV, ch. 2, 1003b5-10 206n72  
 IV, ch. 2, 1003b20 127n56  
 V, ch. 7, 1017a27-30 190n14  
 V, ch. 14, 1020b14-17 31n69  
 VII, ch. 8, 1034a14-16 73n129

## PH

- 1, 3 etc.  
 ch. 1, 16a1-2 64n89  
 ch. 1, 16a3 29, 64n89, 92n61, 118  
 ch. 1, 16a3-4 70n119, 72  
 ch. 1, 16a3-8 43-76, 101n96  
 ch. 1, 16a4 45-48  
 ch. 1, 16a5-6 131n73  
 ch. 1, 16a6 48-51, 64n89  
 ch. 1, 16a7-18 132n79  
 ch. 1, 16a8-9 117  
 ch. 1, 16a11-13 71  
 ch. 1, 16a13-15 **70n120**, 72  
 ch. 1, 16a13-18 12, **62n81**  
 ch. 1, 16a15 134n91  
 ch. 1, 16a16 51  
 ch. 1, 16a16-18 40  
 ch. 1, 16a17 51  
 ch. 1, 16a17-18 132n79  
 ch. 2, 16a19 51n37  
 ch. 2, 16a19-20 92n61, 130n66, 132n77  
 ch. 2, 16a19-16b5 13, 19  
 ch. 2, 16a20 147  
 ch. 2, 16a21-24 38n104  
 ch. 2, 16a24 51  
 ch. 2, 16a26-28 **46n16**  
 ch. 2, 16a28 22, 68n111  
 ch. 2, 16a29-31 88  
 ch. 2, 16a31-16b1 137n103  
 ch. 2, 16a32 135n97  
 ch. 2, 16a32-16b1 135n95  
 ch. 2, 16a32-16b5 117n2  
 ch. 3, 16b6 147  
 ch. 3, 16b6-7 132n77  
 ch. 3, 16b6-25 13, 19  
 ch. 3, 16b7 134n92  
 ch. 3, 16b10 51n34  
 ch. 3, 16b14-15 135n97, 136n100  
 ch. 3, 16b14-17 135n95  
 ch. 3, 16b16-17 137n103  
 ch. 3, 16b16-18 137n105  
 ch. 3, 16b18 44n6

ARISTOTLE, *PH* (*continued*)

- ch. 3, 16b19–20 134n91, 135n97,  
138, 198n45  
ch. 3, 16b19–21 105n115  
ch. 3, 16b19–25 14, 87, 199–217  
ch. 3, 16b22 51n34  
ch. 3, 16b22–23 62n82  
ch. 3, 16b22–25 191n22, 212  
ch. 3, 16b23–25 211  
ch. 3, 16b24 173n127  
ch. 4, 16b26 92n61  
ch. 4, 16b26–28 174n131  
ch. 4, 16b26–17a7  
13, 19  
ch. 4, 16b31 51  
ch. 4, 17a1 51  
ch. 4, 17a1–4 154n24  
ch. 4, 17a2–3 18n6, 21  
ch. 5, 17a8–10 156n37, 156n38  
ch. 5, 17a9 147, 148  
ch. 5, 17a13–15 185n183  
ch. 5, 17a15–17 156n37, 156n39  
ch. 5, 17a16 147, 148  
ch. 5, 17a17 22  
ch. 5, 17a18 22  
ch. 5, 17a20 19  
ch. 5, 17a20–22 170n112  
ch. 6, 17a23 51  
ch. 6, 17a25 19  
ch. 6, 17b8 22  
ch. 8, 18a13–18 156n37  
ch. 8, 18a13–27 13  
ch. 8, 18a18–21 180n164  
ch. 9, 18a28–19b4  
41n117, 137n108  
ch. 10, 19b10–22  
14  
ch. 10, 19b12 145n136,  
221n139  
ch. 10, 19b13–14  
221  
ch. 10, 19b19 197  
ch. 10, 19b19–22  
194  
ch. 10, 19b19–31  
191  
ch. 10, 19b25 195n31

- ch. 10, 19b29–30  
194  
ch. 10, 20a13 173n127  
ch. 10, 20a32 134n91  
ch. 10, 20b2 134n91  
ch. 11, 20b12–22  
13, 153n37  
ch. 11, 21a26–27  
219n134  
ch. 12, 21b9–10 190n14  
ch. 13, 22a14–17  
164n77  
ch. 14, 23a32–37  
78n4  
ch. 14, 23a33 36n94  
ch. 14, 23a38 36n94  
ch. 14, 23b3 36n94  
ch. 14, 23b21 36n94  
ch. 14, 23b22 36n94  
ch. 14, 24b1–4 47n20, 78n4

*Phys.*

- I, ch. 2, 185b29 190n14

*PoA*

- I, ch.10, 76b24–27  
78n5  
I, ch.18, 81b 109n127  
II, ch.10, 93b29–94a2  
130n39

*Poet.*

- ch. 19, 1456b8–13  
154n24  
ch. 20, 1456b20–21  
121  
ch. 20, 1456b38–1457a6  
147  
ch. 20, 1457a10–16  
130n67  
ch. 20, 1457a16 88n47  
ch. 20, 1457a24–28  
152n4  
ch. 20, 1457a24–30  
156n40

*Pol.*

- I, ch. 2, 1253a9–15  
22n30  
IV, ch. 9, 1294a35  
46n15



- PrA*  
I, ch. 1, 24b16–18 171n114  
I, ch. 38, 49a27–49b2 190n14  
I, ch. 46, 51b13–16 201n57  
II, ch. 27, 70a6–16 48n24  
II, ch. 27, 70a6–24 59n73  
II, ch. 27, 70a16–24 50n28  
II, ch. 27, 70a29–33 50n29  
II, ch. 27, 70b2–4 61n78  
*Rhet.* 74n133  
I, ch. 2, 1357a22–b25 49, 50  
I, ch. 2, 1357b15–16 49n26  
I, ch. 4, 1360a14–15 49n17  
II, ch. 24, 1401a8 127n57  
III, ch 16, 1417b2–5 158n45  
*SE*  
ch. 1, 165a6–10 47n22  
ch. 4, 165b27 127n57  
ch. 4, 166a16 158n45  
*Top.* 3, 3n12  
AUGUSTINE  
*Contra mendacium*  
XII, 26, 507.10–11 25n41  
*De dialectica*  
c. 5 [8] 86n40  
c. 6 [11] 131n75  
*De doc. christ.*  
I, ii, 2 [5] 9.11–12 58n65  
II, xxv, 39 [100] 62.19–29 68n108  
*De magistro* 105n116  
II, 3, 159.78–79 58n65  
II, 3, 160.6–7 153n8  
*De mendacio*  
III, 3–4, 25n41 25n41  
*De trinitate* 65n100, 89n51, 91  
V, 16 [17] 226.43–53 67n107  
XV, 10 [18] 485.58 80n16  
XV, 10 [19] 485.66–68 80n17  
XV, 11 [20] 488.42–44 80n18  
XV, 11 [20] 488.44–45 80n19  
*Enchiridion*  
VII, [22] 62.73–76 224n7  
*Sermones*  
212, PL 38, 1058 54n48  
*Tract. in Ioh.*  
LIII, § 2, 452.16–19 89n51  
BACON, ROGER  
*De signis*  
§§ 16–18, 86–87 91n58  
BOETHIUS  
*Contra Eutychen*  
1, 209.66–67 166n90  
3, 216.206–213 204n67  
*CP* 1, 2, 3n7, 118n12, 233, 235n80  
I, pr. iii 232n55  
III, m. xi, 91.15–16 109n129  
V, pr. iisqq. 69n112  
V, m. iv, 149.83–88 108n122  
V, m. iv, 151.1–9 109n126  
V, m. iv, 152.30 105n116

BOETHIUS, *CP* (*continued*)

V, m. iv 109n128  
 V, m. iv, 151.6-9

**66n103**

V, m. iv, 151.14 34n87  
 V, m. iv, 151.35-40

**102n104**

V, pr. v 109n128  
 V, pr. v, 152.4 105n116

*De arith.*

I, § 1, 9-12, 10.39-14.30  
 233n63

*De cat. syll.* 6n27, 192n23

8.11-12 = 763a 149n155  
 12.14-13.8 = 796c-797d

119n14

13.1-8 = 796d 126n49  
 13.2 = 796d 126n51

13.10-12 = 797a

129n62

13.11 = 797a 118n11

13.18-20 = 797a

**172n118**

14.11-16 = 797b-c

**153n9**

14.13 = 797c **17n3**

14.15 = 797c 177n151

15.7-9 = 797c 177n151

15.17-16.5 = 797d-798a

173n124

16.5-8 = 798a-b

173n123

16.8-12 = 798a **192n24**

16.9-10 = 798a 190n17,

205n69

54.17 = 814c 211n94

*De div.*

4.6 = 875d 94n65

34.17-18 = 886b

**68n109**

34.21-22 = 886c

128n60

34.25-28 = 886c

131n71

*De hyp. syll.*

218.51-52 = 835b

168n101

218.52-54 = 835b

166n90

218.55-56 = 835b

166n91

220.64 = 835c 166n93

220.67 = 835c 166n94

220.73 = 835d 166n93

230.55 = 838b 148n150

*De top. diff.*

2.22 = 1174b **17n4**

9.23 = 1193d-1194a

158n45

*De trinitate*

3n7

§ 2, 168.68 sqq. 233n63

§ 3, 172.141 131n75

§ 4, 176.262-177.265

**221n137**

§ 4, 177.267-268

63n85

*In Cat.*

159a **68n109**

159a-b 42n118

159b-d 127n57, 130n63

159c-d **23n33**

160a-b 211n93

162d-163b 24n35

163a 127n57, 129n63

164a 132n76

168b 119n19

171d 119n17

182c 119n17

185d-186a **30n65**

189c 119n17

203b-c 92n61

204a-b 77n1

233b-c **97n79**

257d 119n17

260a 119n17

*In Cic. Top.*

280.24-283.33 = 1051a-1054a

145n134

283.37 = 1055a 173n120

296.22-23 = 1068a

**68n110**

300.6-9 = 1072a-b

173n120

300.7 = 1072a 173n121

- 300.8 = 1072b 173n122  
 334.33 = 1108d 127n57  
 336.18-20 = 1111b  
     **65n95**  
 347.9-10 = 1124c  
     **165n85**  
 347.19-20 = 1124d  
     166n90  
 348.2-4 = 1125b-c  
     166n86  
 348.4-5 = 1125c  
     166n87  
 348.4-10 = 1125c  
     166n88  
 348.34-37 = 1126a-b  
     **167n100**  
 353.25-26 = 1130d  
     173n120  
 353.42-45 = 1130d  
     167n99  
 353.42-358.28 = 1131b-1136a  
     148n147  
 357.34-358.17 = 1135b-c  
     146nn139-140  
 362.43-44 = 1140c  
     145n137  
 363.1 = 1140d 145n137  
 367.7-375.47 = 1145d-1156a  
     98n88  
 367.11-14 = 1146a  
     98n88  
 384.5-6 = 1164c  
     **30n68**  
*In Isag*<sup>1</sup> 1n3, 28n51  
     15.2-4 4n13  
     20.12 149n155  
     25.6-15 104n113  
     25.10-11 65n100  
     34.19-20 127n57  
     95.14-96.2 3n10  
*In Isag*<sup>2</sup> 1n3, 3n3, 28n51  
     135.5-13 44n7  
     138.4-17 232n55  
     138.18-22 47n22  
     139.20-140.8 65n97  
     142.17-143.7 127n58  
     144.15-16 224n8  
     150.1 182n175  
     154.17-19 158n45  
     158.9 167n94  
     160.5 104n111  
     163.7-10 **104n110**  
     163.16 104n112  
     164.10-12 **104n113**  
     164.12 109n127  
     164.21-165.7 **109n125**  
     164.21-167.7 98n89  
     166.3 109n127  
     167.12-14 **28n49**  
     167.12-20 30n65  
     167.18-20 4n3  
     192.13-16 131n75  
     223.19-24 **206n75**  
*Introd. cat. syll.* 6n27, 177n154,  
     192n23, 225n15  
     7.3-5 = 762c **120n23**  
     14.14 = 765b 44n6  
     17.9-18.19 = 766a-c  
         119n14, 126n49  
     17.12-15 = 766a-b  
         **126n56**  
     18.5 = 766b 118n11  
     18.7-14 = 766b-c  
         131n71  
     20.12-16 = 767b  
         153n7  
     21.7-10 = 767c-d  
         177n150  
     24.18-19 = 768d  
         **172n119**  
     24.18-25.5 = 768d-769a  
         **192n26**  
     25.1-11 = 769a 143n129  
     25.5-7 = 769a 190n17, 205n69  
     25.5-11 = 769a **193n28**  
     25.7-8 = 769a 190n18  
     25.12-17 = 769a-b  
         143n128,  
         **194n30**  
*In PH*<sup>1</sup> 6n27 etc.  
     31.6-32.3 2n4  
     33.17 **17n3**  
     33.27-34.3 17n1  
     34.4-6 176n146

BOETHIUS, *In PH*<sup>1</sup> (*continued*)

34.7-8	176n147	100.9-12	160n58
34.9-12	176n148	128.29-129.2	170n111
35.12-18	153n7	130.5-6	196n37
37.5-10	95n67	130.23-25	196n35
37.7	23n32	131.5	196n36
37.18-21	34n86	131.8	196n36
37.22-38.14	81n20	131.12	196n36
38.2-5	82n25	132.3 sqq.	2n6
39.2	23n32	132.3-8	206n76
39.16-18	34n86	132.5-6	211n93
39.23-40.1	72n124	139.17-18	42n118
40.15-19	31n75	151.16-17	161n64
40.19-21	32n79	151.23	161n64
41.11-14	117n4	152.2-4	161n64
41.27-42.24	71n123	152.28-153.3	158n45
42.28-43.3	93n64	164.28-165.18	219n134
43.10-11	18n5	223.5-7	98n86
44.2	38n105	<i>In PH</i> <sup>2</sup>	6n27 etc.
45.16-27	132n79	3.7-4.7	3n8
45.23-27	40n114	4.18-20	9n37, 73n131
47.6	149n155	5.3-22	9n41
49.9-17	39n106	5.4-5	8n33
50.20-51.5	131n69	5.7	174n130
52.17-19	135n96	6.20-25	8n34
52.30	149n155	6.19-20	139n113
53.8	44n6	6.20-25	151n1
53.11	44n6	7.5-7	211n93
55.25	133n86	7.12-17	31n72
56.8	133n80	7.12-18	20n17
56.12	133n86	7.12-8.7	23n34, 73n127,
56.27	134n93		229n33
57.5-15	95n68	7.25-27	31n72
60.11-14	40n110	7.26-27	101n98
61.5-8	137n105	7.29-31	73n128
61.11-15	137n107	8.1-7	31n72
63.8-27	87n44	8.6-7	31n73
63.16-27	138n110	8.7-11	121n24
64.15-18	204n65	8.30-9.5	152n6
64.24-65.8	210n89	9.6-9	153n10
65.19-24	210n89	9.6-18	153n7
65.25-66.4	208n82, 211n91,	9.9-10	153n12
	220n136	9.11-12	153n14
71.1-6	153n7	9.12-13	153n16
75.3	185n185	9.14-15	153n18
75.3-26	157n44	9.17	153n19, 153n21
77.7-15	171n117	9.18	153n22
		11.21	23n32

11.24-30	30n66, 63n85	26.23-27.5	45n45
12.5-6	63n86	26.28	28n50
12.7-12	<b>62n83</b>	27.2-4	<b>28n52</b>
12.21-25	63n85	27.6-10	29n57
12.28-13.9	63n85	27.10-11	<b>31n71</b>
13.6-7	224n8	27.14-17	29n59
13.8	23n32	27.18-22	29n60
14.9-15.7	<b>124n45</b>	27.20	65n100, 102n105
14.14-15	17n1	27.25	26n43, 102n105
14.22-23	<b>35n91</b>	28.1	65n100
14.26	182n11	28.1-13	29n61
15.7	118n11	28.4-13	110n132
16.6-19.3	153n30	28.28-29.2	109n124
20.1-3	153n30	29.3-5	30n63
20.12-26	<b>95n66</b>	29.7-10	30n62
20.26-21.1	81n20, <b>95n69</b>	29.11-13	30n64
20.30	164n76	29.13-16	<b>30n67</b> , 30n68
21.1-4	<b>97n82</b>	29.15-16	27n45
21.4-5	<b>31n70</b>	29.17	77n2
21.5-7	72n124, <b>99n93</b>	30.3-5	<b>77n1</b>
21.7	105n118	30.3-10	<b>72n125</b>
21.18-24	74n134, <b>81n21</b>	30.6-10	<b>78n7</b> , 117n5,
21.28-30	<b>96n71</b>		138n112
21.31-33	96n75	30.29-30	64n90, 118n6
21.33-22.1	96n76	32.13-33.2	<b>128n61</b> ,
22.2-6	<b>38n101</b>		149n153
22.3-6	96n77	32.17-22	119n13
22.6-11	96n72	32.17-25	128n60
22.11	96n73	32.19	127n57
22.11-13	96n74	33.27-31	10n44, <b>32n76</b>
22.13-19	99n92	33.33-34.13	<b>108n123</b>
22.22-27	63n87	34.7	224n8
23.1-3	73n126	34.13-15	110n131
23.16-22	81n20	34.13-19	58n66
23.27-24.10	<b>106n117</b>	34.14	23n32
24.1-7	90n52	34.21-26	<b>98n83</b>
24.12-13	<b>31n75</b>	35.5-6	103n108
24.14-15	<b>101n99</b>	35.15-21	34n86
24.20	<b>28n48</b>	36.7-10	<b>62n84</b>
24.21-27	<b>101n100</b>	36.10-14	77n3
24.24	78n8, 82n23	41.13-16	83n29
24.27-25.5	<b>81n20</b>	41.16-19	<b>84n33</b>
24.28	82n24	41.21-28	83n30
26.1-21	206n76	41.28-42.4	83n31
26.10-11	<b>100n96</b>	42.2-4	69n116
26.17sqq.	29n57	42.4-6	83n32
26.21-23	27n44	43.18-21	<b>98n84</b>

BOETHIUS, *In PH*<sup>2</sup> (*continued*)

44.9-12	<b>98n85</b>	65.3-7	137n104
44.25-45.2	<b>89n50</b>	66.6-8	130n68
44.26	78n8	66.9-16	133n84
45.32-46.12	<b>36n93</b>	66.9-27	133n81
46.12-15	37n97	66.15	133n86
46.15-22	37n98	66.22	133n87
46.24-27	37n99	67.7-10	134n93
46.27-47.5	37n96, <b>93n63</b>	67.11-21	134n94
47.5	141n123	67.29-30	<b>133n85</b>
48.15-21	<b>70n118</b>	68.7-24	134n93
48.19-21	94n65	69.29-70.20	136n101
49.27-32	30n68, <b>35n90</b> ,	70.15-18	40n112
	222n142	70.20	137n105
50.3	38n105	70.21-71.3	44n6
50.9-11	40n114	71.18-29	138n110
51.7-10	221n137	72.8-74.9	138n110
51.30-52.6	132n79	72.14-28	<b>86n43</b>
54.14-26	131n69	72.26-73.13	151n2
54.30-55.1	<b>69n113</b>	75.16-19	111n134
55.7-31	131n73	76.10-15	<b>202n60</b>
55.30	<b>69n112</b>	76.15-26	<b>203n62</b>
55.31-56.5	131n74	76.26-77.1	<b>204n66</b>
56.5-14	131n75	77.1-13	<b>205n70</b>
56.17-18	<b>69n112</b>	77.13-23	<b>207n77</b> , 210n90,
56.28	133n86		233n61
56.30-31	132n78,	77.23-26	<b>207n80</b>
	138n111	77.26-29	209n86
57.4	133n80	77.26-78.8	<b>208n84</b>
57.6-12	133n81	78.8-14	<b>209n85</b>
57.7-8	<b>133n85</b>	78.14-26	<b>209n87</b>
57.32-58.1	39n108	79.8	141n122
58.1	23n32	79.16-80.1	3n11
58.1-2	39n107	79.16-80.6	<b>6n22</b>
58.22-26	<b>39n106</b>	85.8	175n137
59.6-7	<b>69n113</b>	85.19-86.6	175n134
59.14-17	131n69	85.19-87.6	174n132
59.29-31	<b>68n109</b>	85.24-28	174n133
61.8-63.14	88n48	86.7-9	<b>176n145</b>
61.30-62.7	135n96	94.14	185n185
61.31-32	118n9	94.14-16	73n130
61.32	42n119	94.16	149n155
62.7-16	135n97	94.26-28	73n129
63.14-65.22	137n106	95.16-25	153n7
64.23-24	<b>25n40</b>	95.17-18	<b>153n11</b>
64.26	141n123	95.18-19	<b>153n13</b>
65.2	44n6	95.19-20	<b>153n15</b>
		95.20-22	<b>153n17</b>

95.22	<b>153n19</b>	110.10-11	163n71
95.22-23	<b>153n20</b>	110.11-14	211n96
95.28-96.1	154n27	110.14	163n74
96.5-7	<b>182n176</b>	112.11-13	17n2
96.5-9	154n27, 154n28	115.11-13	<b>180n163</b>
96.28-97.2	<b>181n168</b>	116.6-13	158n46
97.1-14	182n170	118.11-13	<b>155n31</b>
97.2-6	181n169	119.9-10	<b>155n32</b>
97.4-6	167n97, 182n173	120.9-121.5	18n5
97.15-18	181n172	120.15-18	<b>25n38</b>
99.7-10	18n5, <b>25n41</b>	120.21-22	17n4
99.28-100.25	187n2	121.30	17n3
100.6-9	<b>175n136</b>	122.7-8	162n67
100.16-17	136n99	122.7-15	162n67
100.18	141n123	122.8	141n123
100.22-23	176n144	122.10	141n123
102.9-11	185n183	122.22	147n141
102.11-14	160n55, 162n68	134.6	147n141
102.22-24	185n183	136.4-6	<b>30n68</b>
102.31-103.11	184n182	136.17-140.20	42n120
103.20-27	185n184	139.19	42n121
103.30	162n65	139.27-29	<b>42n120</b>
104.2-7	185n184	179.8-17	161n59
105.4-12	<b>141n124</b> ,	179.17	169n108
	148n147,	181.16-18	141n121
	222n141	181.19	180n164
105.31	147n141	186.2-9	2n4
106.1-112.8	159n53	186.13-24	17n2
106.17-18	158n47	186.18-22	163n69
106.20-23	<b>158n48</b>	188.23-25	<b>25n39</b>
106.23-25	<b>159n51</b>	193.10-15	<b>61n80</b>
106.25-107.6	180n161	199.4-12	<b>143n132</b>
107.8-12	<b>159n49</b> ,	208.7-18	41n117
	178n156	250.20-251.4	2n4
107.12-22	170n113	260.4-7	<b>221n139</b>
107.20-21	173n125	260.9-15	221n138
107.27-29	<b>170n111</b>	264.17	199n47
108.2	169n108	264.21-23	195n33
108.6-11	180n160	264.26-27	195n34
108.7	185n185	265.3-6	195n34
108.9-25	178n156	265.22-266.6	<b>196n38</b>
108.28-109.9	<b>140n117</b>	265.26-27	191n21
109.22-28	141n120,	265.27	205n69
	178n158	269.25-270.3	180n163,
109.28-110.10	163n72, 167n96		<b>197n42</b>
109.28-110.14	<b>163n73</b>	270.2	205n69
110.1-4	<b>208n83</b>	270.2-3	191n21

BOETHIUS, *In PH*<sup>2</sup> (*continued*)

270.3-8	<b>198n44</b>
276.8	206n76
276.8 sqq.	2n6
294.5-8	2n4
344.5-345.7	233n63
352.5-6	<b>161n60</b>
352.6-8	<b>161n61</b>
353.16-19	158n45
354.12	160n57
355.11	<b>161n63</b>
355.14	<b>161n63</b>
356.7	161n64
356.29	161n64
374.17-18	219n134
374.24-25	219n134
375.14	141n123
405.29-406.18	<b>144n133</b>
405.30-31	222n143
406.19	141n123
449.14	<b>142n125</b>
500.17-18	<b>26n42</b>

## BURIDAN, JOHN

*Sophismata*

ch.1, 15.22-24 = 22	
	105n95

## BURLEY, WALTER

*De puritate logicae*

60-61	166n92
-------	--------

## CALCIDIUS

*Timaeus*

47c	224n7
-----	-------

## CASSIODORUS

*Institutiones*

II, 3, 18	<b>3n9</b>
-----------	------------

## CICERO

*Acad. I*

vii [25]	55n51
viii [30]	<b>28n50</b>
xi [40]	65n99

*Acad. II*

vi [17]	65n99
---------	-------

vi [18]	<b>110n133</b>
---------	----------------

x [32]	<b>60n73</b>
--------	--------------

*De divinatione*

I, lvi [127]	<b>59n69</b>
--------------	--------------

II, xli [85]	71n121
--------------	--------

*De fato*

I [1] 52.3-7	<b>147n143</b>
--------------	----------------

XIX [43] 86.30	65n99
----------------	-------

*De inv.*

I, xxx [48]	<b>60n76</b>
-------------	--------------

*De re publica*

III, ii [3]	<b>66n102</b>
-------------	---------------

*Top.*

	65, 147n143
--	-------------

§ 35, 132.15-20	<b>64n94</b>
-----------------	--------------

§ 53, 142.1-7	<b>165n83</b>
---------------	---------------

*Tusc.*

I, vii [14]	<b>18n6</b>
-------------	-------------

I, xxv [62]	71n121
-------------	--------

## CLEMENT OF ALEXANDRIA

*Protrepticus*

c. 2, 17.4	56n59
------------	-------

c. 2, 17.8	56n59
------------	-------

c. 2, 19.3-4	<b>56n58</b>
--------------	--------------

## CYPRIAN

*Epistula*

69, VII 1, 480.148-155	
------------------------	--

	<b>57n62, 58n64</b>
--	---------------------

## DEXIPPUS

*In Cat.*

7.16-18	<b>101n97</b>
---------	---------------

10.3-5	35n89
--------	-------

10.5-6	94n65
--------	-------

10.18-19	31n74
----------	-------

11.4-17	130n63
---------	--------

## DIOGNES LAERTIUS

*DL*

VII 55	9n39
--------	------

VII 58	118n10, 121n25
--------	----------------

VII 63	152n5
--------	-------

VII 68-69	177n155
-----------	---------

VII 72	146n138
--------	---------

VII 76	148n147
--------	---------

VII 79-81	148n147
-----------	---------



## DIONYSIUS THRAX

*Ars grammatica*

- § 11, 23.1-3 121n26  
 § 11, 23.2 118n10  
 § 13, 46.4-5 134n88  
 § 19, 77.1 121n29  
 § 19, 80.1 121n29

## DONATUS

*Ars maior*

- 153n8  
 603.2-4 = 367.5-7  
     9n40 and n42  
 613.3-4 = 372.25-26  
     121n31  
 624.5 = 377.8 88n46  
 624.12-625.2 = 377.15-20  
     136n102  
 635.5-6 = 383.1  
     123n41  
 637.13-14 = 384.11-13  
     122n40  
 641.9 = 386.8-9  
     133n80

*Ars minor*

- 153n8  
 585.4-5 = 355.2-3  
     121n31  
 585.7-8 = 355.5-6  
     122n32  
 586.15 = 355.24-25  
     88n46  
 588.2-3 = 357.2-3  
     122n33  
 591.6-7 = 359.4-5  
     122n34  
 592.19-20 = 359.37-360.2  
     123n42  
 593.1-3 = 360.4-6  
     123n43  
 593.9-10 = 360.11-13  
     123n40  
 595.25-26 = 362.15-16  
     122n35  
 596.6 = 362.23 133n80  
 597.5-6 = 363.13-15  
     122n36  
 599.13 = 364.33  
     122n37

- 599.15-16 = 364.34-36  
     140n116  
 600.8-9 = 365.10-11  
     122n38  
 602.2-3 = 366.13-14  
     123n39

## FIRMICUS MATERNUS

*De errore profanarum religionum*

- ch. 18 57n61

## GALEN

*De captionibus*

- c.1 158n45

*Inst.*

- XIV [7] 33.79-34.5  
 164n78

## GELLIUS

*Noctes atticae*

- V, xv, [6-9] 209.12-17  
     8n36  
 X, iv, [2-3] 308.3-4  
     75n138  
 XI, xi, [1] 347.17-21  
     26n41  
 XII, v [10] 369.30-370.5  
     166n90  
 XVI, viii [10] 486.10-13  
     208n83

## HERODOTUS

*Historiae*

- VII, 128.8 50n31  
 VIII, 92.18 50n31

## HOMER

*Od.*

- XII 85 136n98  
 XII 245 136n98

## HORACE

*Carminum*

- II, 3.1-8 66n104

- IAMBlichus  
*De mysteriis*  
 VI, 6 56n56  
 I, c. 3, 14.100-102 92n60
- Lucretius  
*De rerum natura*  
 I, 136-139 44n5
- MARTIANUS CAPELLA  
*De nuptiis philologiae et mercurii*  
 118n12  
 III [242] 65.18 118n12  
 III [291] 82.19 118n12  
 III [294] 85.1 118n12  
 III [305] 92.3 118n12  
 III [309] 94.309-310 124n44  
 IV [334] 108.19-22 44n5  
 IV [388] 130.1-2 126n55  
 IV [393] 132.17-133.4 142n126  
 IV [420] 144.5-6 148n150
- New Testament*  
*Matth.* XIII, 45 54n48  
*Romans* V, 5 54n48  
*To Corinthians I*, 13:12 34n87
- NIGIDIUS FIGULUS  
*Fr.*  
 49 26n41
- Ockham  
*In PH*  
 I, c. 3, 389.17-19 19n11  
*Quodl.*  
 V, q. 8, 510.65-68 103n106
- SL  
 I, c. 1, 7.21-25 80n15  
 I, c. 1, 8.46-49 103n106  
 I, c. 2 174n129
- ORIGEN  
*Contra Celsum*  
 VI, 22 56n60
- OVID  
*Fasti* III [650] 59n70
- PHILOPONUS  
*In Cat.*  
 9.14-15 31n72  
*In PrA*  
 6.19-9.24 127n58  
 6.21-24 127n58
- PINDAR  
*Olympia*  
 XII 7-9 46n18
- PLATO  
*Cratylus* 75n138  
 388d6-389a4 69n117  
 394b-c 142n125  
*Meno*  
 81c-86b 109n129  
 98a 109n129  
*Phaedo*  
 72e-76e 109n129  
*Philebus*  
 38c-e 77n2  
*Sophist*  
 259e 28n52  
 261e-262e 121  
 263e-264b 77n2  
*Theaetetus*  
 189d-190a 77n2  
*Timaeus*  
 47c 224n7
- PLAUTUS  
*Bacchides*  
 II, iii, 263-266 53n44  
*Pseudolus*  
 I, i, 53-56 53n44  
 II, ii, 1-5 53n44

## PLINY THE ELDER

*Naturalis historia*

XXXIII 1 (4) 10–11, 107.22–108.1

53n45

## PLOTINUS

*Enneades*

94n65

I 2, 3.27–30

77n2, 94n65,

111n134

III 6, 1.7–11

232n57

IV 3, 30.10

34n87

V 1, 3.7–8

77n2, 94n65

V 3, 13.28

85n37

V 4

218n128

## PLUTARCH

*Adv. Colotem*

22, 1119E–1120A

27n46

*De E apud Delphos*

386F

140n116

*Platonicae quaestiones*

q.10, §8, 153.3–8

125n48

## PORPHYRY

*De abstinence*

III 3, 1

78n3

III 3, 2

85n38

*In Cat.*

57.2–58.20

130n63

57.20

97n82

58.32–59.2

129n63

62.4

118n11

64.28–30

78n3

68.31–69.9

132n76

69.2

131n75

101.26–28

77n3

121.8–9

40n110

*In Harm.*

11.28–29

9n37

*Isag.*

§ 1, 1.6

1, 3, 201

§ 1, 1.10

201n58

§ 10, 6.8–9

204n67

201n57,

206n74

## POSIDONIUS

*Fr. 45*

139n114

## PRISCIANUS

*Inst.*

158n8

I, 5.1–2

9n40

I, 5.6–15

9n43

I, 55.6–7

68n109

II, 53.8–12

175n135

II, 53.15–16

152n4

II, 56.29–57.1

122n32

II, 59.18

131n75

III, 141.20–142.17

183n178

VIII, 369.2–3

122n34

XI, 522.18–20

122n36

XII, 577.2–3

122n33

XIII, 1.2

136n102

XIII, 24.13–14

122n38

XV, 60.2–3

122n35

XV, 90.9–12

123n39

XVI, 93.1–6

122n37

XVIII, 239.5–9

201n56

## PROBUS

*Instituta artium*

120.9

131n75

## PROCLUS

*In Cratyl.*

16.30–17.1

73n129

*In Parm.*

850.9–11

28n55

851.6–8

28n54

852.30–32

29n56

*In Tim.*

III, 305.14–21

85n36

*Theologica platonica*

I, 29

56n57

## QUINTILIAN

*Inst.*

I, c. 4 [1]

68n109, 119n16

I, c. 4 [19]

121n30

I, c. 4 [20]

121n28, 121n31

I, c. 5 [65]

87n46

I, c. 6 [28]

65n98

V, c. 9 [9–11]

61n76

## RUFINUS OF AQUILEIA

*Expositio symboli*

2, 134 55n50

## SCOTUS, DUNS

*Q. in I PH*

q.4, 68.13-17 102n106

## SENECA

*Epistulae* 58, § 1 44n5

## SEXTUS EMPIRICUS

*Adv. math.*

VIII 11-12 21n22, 32n83

VIII 13 27n46

VIII 215 140n116

VIII 275 77n2

VIII 276 64n92, 164n79,

233n60

VIII 284 140n116

VIII 414 148n147

XI 29 158n45

## SIMPLICIUS

*In Cat.*

9.20-24 127n56

10.23-25 125n48

15.2-16 130n88

15.13-22 63n88

36.26 131n75

42.5-6 31n72

312.25 127n57

336.5 127n57

396.6 127n57

## SUETONIUS

*De vita*

II, c.94 67n105

VI, c.25 67n105

## SVF

I 74 9n39

II 135 77n2

II 141 8n36

II 223 64n92, 77n2,  
164n79, 223n60

## TERTULLIAN

*Adv. Marc.*

V, I 53n46, 54n54

## THOMAS AQUINAS

*In de trinitate*

q.6, a.3, c., 168.145-150

230n43

*In PH*

I, lec. 5, 30.331-334 = n. 70

207n78

## VARRO

*De lingua latina*

VIII, § 10, 168.5

208n83

VIII, § 44, 179.12-15

121n27

X, § 17, 242.11-16

121n27

*Fr.* 28, 10

208n83

## VIRGIL

*Aen.*

I 200 136n98

I 229-230 153n17

I 734 153n11

II 691 153n10

III 420 136n98

III 441-446 66n102

IV 223 153n12

VI 286 136n98

VII 302 136n98

VIII 150 153n13

X 18 153n16

X 770 87n46

*Ecl.*

III 1 153n14

IX 1 153n15

*Georg.*

II 9 153n18

## XENOPHON

*Cyropaedia*

VIII 5, 13 50n31

# INDEX OF NAMES (ANCIENT AND MEDIEVAL AUTHORS) AND SUBJECTS

For ancient and medieval names, see also Index of Ancient and Medieval Texts.

No mention is made in this index of Aristotle and Boethius, because I focus on them throughout this book. Please note that many subject-terms are listed both in their original language (Lat. means Latin and Gk. means Greek) and in translation. The Latin translation are mainly taken from Boethius' commentaries on Aristotle's works (for a complete list, see indices in AL), but are sometimes from other writers.

- abstraction (Lat. *abstractio*, Gk. ἀφαίρεσις), 109–110
- accident, 11, 71, 85, 93, 134, 157, 160–162, 206
- act vs. potency, 35–37, 74, 85, 91–92, 110, 112n141, 145
- action (Lat. *actio*, Gk. ἐνέργεια), category of, 73, 105, 124, 133–134, 138, 202, 204–205, 228–229
- adjective, 51, 88, 134, 173, 184, 176
- adverb (Lat. *adverbium*, Gk. ἐπίρρημα), 88n47, 119, 121–122, 124, 126, 133n80, 182n171
  - negative, 143, 193, 194, 222
- affection, of the soul (Lat. *passio*, Gk. πάθημα, πάθος), 26, 29–30, 32, 34, 42–43, 48, 51, 62n85, 70, 72, 80, 82, 84, 97–98, 101n96, 102, 110, 231
- affirmation (Lat. *adfirmatio*, *affirmatio*, Gk. κατάφασις, φάσις), 25–26, 47, 62, 64n89, 141, 143–144, 145n36, 155–156, 159–163, 169, 174, 176, 190, 192–195, 198, 200, 204–205, 209, 212, 220–222
- ἄγαλμα, 55–56
- ἀκολουθία, 164–165, 232
- Albinus, 3
- Alexander of Aphrodisias, *xxi*, 6n27, 7, 31n69, 62–63, 100, 101nn96–97, 155n30, 172n118, 174–175, 193n29, 199n47, 205–206, 215n117, 216–219, 221, 232n56
- Alexandria (-ns), 118, 189
- Ammonius, *xxi*, *xxiii*, 4n15, 6n25
  - and n27, 7, 9n37, 30n63, 33n84, 37n97, 44n6, 51n38, 67n106, 69n112, 75n138, 77n2, 78n6, 81n20, 91n59, 96n70, 98n87, 99n90, 105, 107n120, 125n47 and n48, 126n50, n52 and n53, 128n61, 133n81, n84 and n88, 135n97, 137n104, 149n154, 152n3, 154n23 and n26, 155n30, 156n39, 158n45, 172n119, 176n144, 182n171 and n174, 189–191, 197n40, 198n46, 199–200, 201n54 and n55, 205n68, 212–221, 224n7, 232n57 and n58, 235
- Andronicus of Rhodes, 30n66, 62n85, 218n129;
- anima*, 23n32
- animus*, 23n32
- Anselm, 91, 235n80
- Apollonius Dyscolus, *xxi*, 118, 139
- appellatio*, 68, esp. n109
- Apuleius, *xxi*, 125n84, 126n50, 142n126, 143n130, 148n150

- article (Gk. ἄρθρον), 121, 126n50,  
     182n171, 201–202  
     lack thereof in Latin, 5, 121, 202  
 articulation, 9, 86, 91  
*articulata*, of voice, 9  
 Aspasius, xxi, 83–84, 218n129  
 astronomy, 50, 233n63  
 Augustine, of Hippo, xxi, 25n41,  
     54, 58, 64n92, 65n100, 67n107,  
     68n108 and n109, 69n112, 79–  
     80, 86n40, 89n51, 91, 105n116,  
     131n75, 153n8, 224n7, 235  
 Augustinianism, 235n80  
 axiom, Stoic (*see* ‘proposition, Stoic’)
- Bacon, Roger, 91, 106n119, 224n3  
 bivalence, principle of, 40–41  
 Buridan, John, 100n95
- Calcidius, 224n7  
 case (Lat. *casus*, Gk. πᾶσις), 121,  
     127, 135–137, 149  
     of a noun, 25–26, 117n2, 118,  
     122–123, 128–129, 136–137,  
     139, 149, 183  
     of a verb, 87, 132, 136–137  
 categories, Aristotelian, 9, 12, 20,  
     23, 73, 206, 229  
 causation, cause, 59, 76, 85, 97–105,  
     107–108, 112, 161n64, 167, 169,  
     225, 227, 230, 234  
     accidental, 185  
     efficient, 98n88, 99, 112  
     formal, 98–99, 112  
     material, 98–99  
     moving, 98n88  
 chimera, 38, 40, 96, 105n114, 230,  
     234–235  
 Christians, 55–58, 74  
 Cicero, xxi, 18n6, 28n50, 55n51,  
     59n69, 60–61, 64–66, 71n121, 74,  
     98n88, 110n133, 146, 147n143,  
     165, 166n89, 167, 172, 232  
*cogitabile*, 86n40, 88–89  
 cognition, 36, 106, 108, 234  
 coin, 67–69, 71, 74–75, 92, 128–  
     129, 149
- commentators, on Plato and  
     Aristotle, xxiii, 2, 6–7, 30n63,  
     31n72, 35n89, 63, 73n129,  
     75n138, 101, 125n48, 127n57,  
     127n58, 130n63, 135n95, 158,  
     166n89, 174, 211, 218, 224, 232,  
     234–235  
 common name/noun (Lat. *nomen  
     appellativum*, Gk. προσηγορία),  
     42, 68n109, 118, 121, 123  
 communication, 11, 106, 112, 224  
 composition (Lat. *compositio*, Gk.  
     συμπλοκή, cf. ‘division’), 36–37,  
     71, 88, 93, 111, 202, 209, 215–  
     216  
     of thoughts, 35, 37, 70, 72, 93,  
     101, 230  
     of words, 35, 37, 70, 72, 93, 101  
     of the verb ‘to be’, 202–203, 207–  
     208, 211–212, 216, 218, 221–  
     222  
 concept (*see* ‘thought’)  
*conceptio*, 82n24  
 concept-word, 41–42  
 conjunction (Lat. *conjunctio*, Gk.  
     σύνδεσμος), 13–14, 71, 104,  
     119–122, 124, 126, 139–151, 156–  
     158, 163, 165, 167–170, 176–183,  
     187–188, 200, 206–208, 210, 222,  
     227–229, 232–233  
 connective (*see* ‘conjunction’)  
 consequence (Lat. *consequentia*, Gk.  
     ἀκολουθία, ἀκολουθήσις), 143,  
     163–167, 169, 179, 183, 232  
     accidental, 166  
     of nature, 166–167  
 consequent, 144, 165, 166n89, 167–  
     169  
 convention (Lat. *ad placitum*, Gk.  
     συνθήκη), of language (cf. ‘nature  
     vs.’), 45–46, 48, 51, 66–69, 73–  
     76, 79, 82, 102, 112, 129–131,  
     224–225, 231  
 copula, 11, 14, 19, 179, 187–222  
*copulatio*, 207–208, 211, 220  
 corporeal vs. incorporeal, 27–29,  
     30n65, 84, 109–110

- co-signify (Lat. *consignificare*, Gk. προσημαίνειν), 39, 133, 139, 173–174, 216, 221  
 Creed, Apostles', 52–58  
 Cyprian, 57
- dancing, 73  
 δηλοῦν, 22n30, 156n39  
*demonstrare*, 20–26  
 denominative (see 'paronym')  
*designare*, 22–24  
 Dexippus, XXI, XXIII, 7, 31n74, 35n89, 94n65, 130n63  
*dialecticus*, 120n23, 165n83, 172n118  
*dicibile*, 86n40  
 diction (Lat. *dictio*, Gk. φάσις), 159, 170, 174–175  
   simple, 175  
*dictism*, 18, 184  
*dictum*, 18, 21–22  
 Diogenes of Babylon, 121  
 Dionysius Thrax, XXI, 118n10, 121n26, 121n29, 134n88  
 direct reference, theory of, 27, 224n3  
 discourse (see 'speech')  
 disjunction, 145–146, 168–169  
   exclusive, 146, 168–169  
 division (Lat. *divisio*, Gk. διαίρεσις, cf. 'composition')  
   of spoken words, 35, 56, 120  
   of thoughts, 35–37, 61, 70, 110–111, 170, 222  
 Donatus, XXI, 9nn40–41, 88n46, 118–119, 121–124, 127, 131n70, 133n80, 134n88, 137n104, 140n116, 150n156, 153n8  
 double activity, 111n139  
 double-*intellectus* theory, 106n119  
 Duns Scotus, see 'Scotus, Duns'
- elementum*, 81n20  
 Empedocles, 46  
 ἔνδοξον, 48n24, 69  
 enunciation (Lat. *enuntiatio*, Gk. ἀπόφανσις), 17, 25, 28, 124, 143, 147n143, 154, 161, 171–172, 176–177, 192–193, 209, 211, 232  
*enuntiabile*, 18, 21  
*ens*, 201  
 enthymeme, 48, 59  
 Epicurus, XXI, 232n55  
 Epicurians, 232n55  
 equivocal (Lat. *aequivocus*, Gk. ὁμώνυμος), 36, 133, 138, 157–158, 180, 187, 229  
   of being, 205–206, 215  
 essence, 37, 56, 85  
 etymology  
   of *nota*, 65–66  
   of *oratio*, 151  
 excluded middle, the law of, 41n117  
 existence, 210–211, 218, 227–228
- falsity (cf. 'truth,' see also 'truth-value'), 17, 18n5, 25–26, 29, 35–37, 40, 41n117, 71, 88–89, 93, 124, 141, 145, 183, 208–209, 213, 222, 230  
*figura*, 23n33, 58n66, 59–60n73, 109n124, 110, 122, 126–130, 149, 184–185, 225, 230, 232  
 figure, syllogistic, 48–50, 59, 61  
 first thought, the (Lat. *primus intellectus*, Gk. πρῶτον νοήμα), 64n89, 110–111  
 force (Lat. *vis, potestas*, Gk. δύναμις), 29n58, 55–57, 64, 93, 105, 108n122, 133, 140–148, 153, 170, 183, 194, 207–208, 230  
   of a proposition, 140–147, 167n98, 170, 222, 228
- form  
   of things (Lat. *forma*, Gk. εἶδος), 28, 98–99, 108–109, 161–162, 232  
   of words (Lat. *figura*, Gk. σχῆμα), 122, 126–129, 130n63, 131n71, 137, 149, 164, 184–185, 225, 227, 230, 232  
 freedom, 69n112  
 future contingent, 41n117, 137

- Galen, XXI, 158n45, 164n78  
 Garlandus, 188n5  
 genus (cf. 'species'), 167, 205  
   of a verb (*see under* 'verb')  
 geometry, 233n63  
 God, 63n85, 83–84, 221n137  
 good or goodness, 26n43, 50,  
   69n116, 83–84  
 Gorgias, 127n57  
 grammar or grammarians, 4, 5n19,  
   9–14, 88, 113, 117–123, 126–131,  
   132n82 and n88, 136, 140n116,  
   147–150, 157, 184–185, 188,  
   215n113, 223, 225–229, 233  
   ancient, 4, 88, 121  
   Port-Royal, 187n3
- Herminius, 218n129  
 Homer, 136n98, 153, 219n134  
 Horace, 66  
 ὑπάρχειν, 205n68, 215n113
- Iamblichus, XXI, XXIII, 31n72, 55–  
   56, 97n82  
 ideas or Ideas  
   mental, 10, 129, 227n25  
   Platonic, 28–29, 30n65, 129  
 identity, 45, 160, 162  
 illumination, 56, 110  
 image, mental (Lat. *imaginatio*,  
   *imago*, *see also* 'imagination'),  
   36–37, 102–104, 109, 227  
*imaginatio*, 29n58, 39  
 imagination (Lat. *imaginatio*, *visum*,  
   Gk. φαντασία), 27, 29–30, 36–  
   37, 102, 104, 108–109, 232, 234  
   vacant (*vacua*), 104  
 implication, 145–146, 164, 168  
   causal, 169  
   material, 146, 169  
   strict, 169  
 imposition (Lat. *positio*, Gk. θέσις),  
   68, 69n116  
   first and second, 130n63  
 incompatibility (Lat. *repugnantia*,  
   Gk. μάχη), 143, 166–167, 169,  
   179
- indefinite noun (Lat. *nomen*  
*infinitum*, Gk. ἀόριστον ὄνομα),  
   88, 135, 138, 187, 191n20  
 indefinite verb (Lat. *verbum*  
*infinitum*, Gk. ἀόριστον ῥῆμα),  
   135–136, 138, 187, 222  
 inference (*see also* 'syllogism'), 10–  
   11, 49, 61, 63, 166  
 infinitive (Lat. *infinitivum*, Gk.  
   ἀπαρρέμφατον), 176n144, 203,  
   213  
 inflection, 44, 123–124, 127, 129,  
   137, 147  
 intellect (Lat. *intellectus*, Gk. νοῦς),  
   20, 23, 25, 29–30, 36, 78, 82,  
   85, 87, 89–91, 95, 97, 99, 101,  
   103n106, 107n120, 108–110,  
   111n134  
*intellectus*, 29n58, 82n24  
   double-*intellectus* theory, (*see*  
   'double-')  
*intellegentia*, 108n122  
 intension, 21  
 interjection (Lat. *interiectio*), 119,  
   121, 123–124, 126, 131  
*interpretatio*, 8, 151  
 interpretation (Lat. *interpretatio*,  
   Gk. ἐρμηνεία), 8–9, 151
- justice, 69n116, 83–84
- κατάληψις, 110n133
- language  
   mental, 10–14, 77–176, 177,  
     223, 225–226, 228  
   natural, 10–11, 79, 81–82, 84,  
     91–92, 226–227, 230  
   of thoughts (LOT), 78–79,  
     93n62, 103, 111  
 λεκτόν (*see* 'sayable, Stoic')  
 likeness (Lat. *similitudo*, Gk.  
   ὁμοίωμα), 70–72, 74–75, 112  
   between names and things,  
     28  
   between things and thoughts,  
     30n63, 34, 43, 80, 234n72



- between thoughts and spoken  
     words, 70, 76, 94, 112  
 of a vocal sound, 80, 91  
*littera*, 9, 81n20  
 locution (Lat. *locutio*, Gk. λέξις), 9,  
     79–80, 121, 131n71, 139n114  
 logic  
     Aristotelian or classical, 3, 12, 63,  
         189, 236  
     its relationship with philosophy,  
         120n58  
     modern, 10–11, 14, 145–148,  
         168, 179, 223  
     Peripatetic or term, 64, 127n58,  
         147–148, 152  
     Stoic or propositional, 130, 147–  
         148, 152, 177, 184, 233–235  
     subject of, 154, 182, 230, 233  
     two-term, 187, 189–190, 229  
     two-name, 190, 217  
*logicus*, 120n23, 230n43  
 λόγος, 151n2
- Martianus Capella, xxi, 44n5,  
     118n12, 124n44, 126n55,  
     142n126, 148n150, 150n156  
 mathematics, 1, 233n63  
 meaning, 8, 10–12, 19, 22, 24, 39,  
     41, 89–91, 96, 100, 106–107,  
     111n137, 122, 140, 142–144,  
     147n144, 162n66, 184, 223, 225  
 mediation, of thoughts, 10, 20, 23,  
     31–34, 41, 74, 76, 101, 169, 224  
*mendacium*, 18n5, 25–26 (esp.n41)  
 mental impression (Lat. *impressio*,  
     *impressio*, Gk. τύπος), 22n27,  
     110, 232  
 metaphysics, 25, 217, 233  
 mind (*see also* 'soul'), 9–13, 21, 23–  
     24, 26, 29, 34n87, 36–37, 44, 60,  
     66, 71–73, 77–78, 81–82, 84–87,  
     89, 91–92, 95–98, 100–111  
 modality or mode, 144–145  
 Modists, 228–229n32  
*monoptota*, 118, 124, 129  
*monstrare*, 22, 25–26  
 music, 1, 233n63
- name (*see* 'noun')  
 name-giver (Lat. *ponens*, Gk.  
     ὀνοματουργός), 69  
 nature (Lat. *natura*, Gk. φύσις), 1,  
     27–29, 30n65, 50, 61, 75n138,  
     83, 95–97, 99, 103, 109–110,  
     124, 143, 153, 161n64, 165–167,  
     170  
     *vs.* convention, of language,  
         49n27, 68, 73, 81–82, 131–132,  
         181–182, 224–225  
 negation (Lat. *negatio*, Gk. ἀπόφα-  
     σις, cf. 'affirmation') 18n5, 25–  
     26, 40n111, 47, 62, 64n89, 135,  
     141, 143–145, 155–156, 159–160,  
     162–163, 166, 169, 174–176, 192–  
     195, 198, 200, 203n61, 204–205,  
     209, 221–222  
 Neoplatonic (-sm, -ists), 6, 55,  
     69n112, 77n2, 86, 120, 217, 231,  
     233–235  
 Nicholas of Paris, 166n92  
 Nigidius Figulus, xxi, 26n41  
 non-existent, 38–39, 135n97, 136,  
     227  
*nota*, 13, 42–77, 102, 107, 112, 226,  
     231  
 noun (Lat. *nomen*, Gk. ὄνομα), 122,  
     129–139 etc.  
     common (*see* 'common noun')  
     composite, 39  
     empty, 37–41, 104, 230, 233  
     mental, 10, 13–14, 72–73, 77–94,  
         113, 223, 225, 228  
     proper, 24n36, 32n77, 38n103,  
         39–42, 118, 121–123, 128,  
         154n40
- Ockham, William of, 18–19, 77n2,  
     80n15, 92, 102–103, 174n129,  
     224n3  
 One, the, 218  
 opinion (Lat. *opinio*, Gk. δόξα), 36–  
     37, 69, 83, 110–111  
*oratio*, 8, 151  
 order or ordering (Lat. *ordo*,  
     *ordinatio*, Gk. τάξις), 56, 233

- order or ordering (*continued*)  
   causal, 97–105, 164, 225  
   of nature, 95–105  
   of speaking (*ordo orandi*), 94–96,  
     99–111, 224  
 Ovid, 59n70, 71n122
- Palaemon, 121
- paronym (Lat. *denominativum*, Gk.  
 παρώνυμον), 119
- participation (Lat. *participatio*, Gk.  
 μέθεξις), 119n19, 206–207, 210,  
 217n127, 219, 233
- participle (Lat. *participium*, Gk.  
 μετοχή), 65, 69, 119, 121–122,  
 124, 126, 127n57, 140n118, 201–  
 202, 213, 217
- passio* (see ‘affection’ or ‘passion’)
- passion, of category (Lat. *passio*, Gk.  
 πάθος, see also ‘affection, of the  
 soul’), 73, 124, 133–134, 204–  
 205, 228–229
- perceptio*, 108, 110 (esp.n133)
- Peripatetic(s), 64, 72, 77, 125n48,  
 127n58, 137n104, 147–148, 152,  
 154
- Philoponus, XXI, XIII, 31n72,  
 127n58
- phoneme, 75
- phrase, 140, 141, 152, 155, 162,  
 172–175, 181–183, 191, 228, 232
- physics, 233n63
- placitum, secundum* or *ad*, 46n16,  
 68–69, 112, 130
- Plato, XXI, 3, 5–6, 8n35, 28n49, 42,  
 69n117, 73n129, 75n138, 77n2,  
 109n129, 120–121, 131, 142n125
- Platonism (-ic, -ists, see also  
 ‘Neoplatonic’), 28, 109, 119n19,  
 125n48, 231, 233–235  
 Middle, 6n23
- Platonitas* or *Platonity*, 42
- Plautus, XXI, 53, 55n49
- Pliny the Elder, XXI, 52n43, 53
- Plotinus, XXI, XXIII, 34n87, 37n95,  
 77n2, 84n35, 85, 94n65, 111n134  
 and n139, 218n128, 232n57
- plurivocation, 131
- Plutarch of Chaeroneia, XXI, 27n46,  
 125n48, 140n116
- Porphiry, XXI, XXIII, 1, 3–4, 6n23,  
 7, 9n37, 27, 29n57, 31n72, 55n55,  
 77, 78n3, 84n35, 85, 97n82,  
 101n96, 118n11, 125n48, 129n63,  
 130n63, 131n75, 133n81, 155,  
 163, 174–175, 200, 201n57  
 and n58, 204n67, 206–208,  
 210–211, 214–215, 218–219,  
 224n7, 229n38, 232n56, 234–  
 235
- power (Lat. *potestas, vis*, Gk.  
 δύναμις, see ‘force’)
- πρᾶγμα, 213n104
- predicate (cf. ‘subject’), 11, 19, 37,  
 142n126, 143, 156, 160–162, 171–  
 173, 176n144, 177, 180, 184, 187–  
 192, 194–199, 203–205, 208, 210,  
 212, 215–217, 219–222, 229
- predication, 88, 143, 155, 194  
 accidental or additional, 196–  
 197, 199
- premise (Lat. *propositio*, Gk.  
 πρότασις), 17n3, 48–50, 59–  
 60, 74, 140n116, 171, 193n29,  
 198n43
- preposition (Lat. *prepositio*, Gk.  
 πρόθεσις), 75, 119, 121–  
 122, 124, 126, 139, 151, 173,  
 182n171
- Priscian, grammarian, XXI, 4,  
 9, 68n109, 118–120, 139n114,  
 140n116, 152n4, 153n8, 175n135,  
 183n178, 201n56
- probabile*, 60n73
- Probus, 131n75
- Proclus, XXI, XXIII, 28, 55n52, 56,  
 73n129, 75n138, 84–85
- pronoun (Lat. *pronomen*, Gk.  
 ἀντωνυμία), 88n47, 119, 121–  
 122, 126, 136n102
- pronunciation, 87, 185
- proposition (Lat. *propositio*, Gk.  
 πρότασις)  
 Boethius’ definition, 17–26

- composite, 2n5, 140n119, 148,  
     158–159, 170–173, 176–185,  
     222, 226  
 conditional or hypothetical, 143–  
     144, 148, 154, 159, 163, 165–  
     169, 176, 179, 183–184, 211, 235  
 disjunctive, 167–169  
 duplex, 176n147  
 force of (*see under* ‘force’)  
 maximal, 145n134  
 modal, 145  
 multiple, 158–170, 178–182, 226  
 non-simple (*see also* ‘composite’),  
     147, 148n146  
 one or single, 158–170, 178–183,  
     211  
 part of, 196–198  
 simple, 2, 17, 63n85, 64, 125,  
     140n119, 145, 148, 158–159,  
     170–173, 175–182, 184, 192, 222  
 Stoic, 18n6, 21, 148n146, 232  
 unity of, 151, 155–170, 178, 181–  
     184, 228, 235  
 propositional, 18–19, 36, 37n95, 93,  
     147n142, 148, 155n34, 162n66,  
     177, 181  
 psychologism, 12  
 Pythagoras, 233n62  
 Pythagoreanism, 55, 233n62  
  
*quadrivium*, 233n63  
 quality, 23, 31n69, 73, 144, 162, 205  
     of a proposition, 143, 190–194,  
     196–198, 220–221  
     of thoughts, 30, 35, 93n62  
 quantifier, 179, 220  
 Quintilian, XXI, 61, 65, 68n109,  
     87n46, 119n16, 121n28 and n30  
  
*ratio*, 108n122  
 reality, 37, 83, 105n114, 169, 228  
 recollection, Platonic, 109  
 reduction, 190, 217, 225  
 reference (-t), Fregean, 10, 12,  
     18–22, 24, 26–27, 32, 37–41,  
     143n130, 169, 207n81, 224, 227,  
     230–231  
  
 relation, category of, 11, 73, 97  
 relativism, 83  
*res*, 26n43, 162, 213n104  
 rhetoric, 61, 74, 127n57, 149n152,  
     233n63  
 Robert Kilwardby, 52, 106n119,  
     166n92  
  
 Sapir-Whorf hypothesis, 82  
 sayable, Stoic (Gk. λεκτόν), 21, 27,  
     28n48, 32n83, 148n146, 154,  
     232  
*scholia*, 27n44, 189  
 Scotus, Duns, 102, 103n106  
 Scylla (Lat. *Scylla*, Gk. Σκύλλη), 38,  
     135–136  
 sea-battle argument, 41n117, 137  
 semantic, 7–8, 12–14, 20  
     Boethius’ first principle (BoSP<sub>1</sub>),  
         37, 41, 159, 169n106, 224, 230  
     Boethius’ second principle  
         (BoSP<sub>2</sub>), 101, 169n106, 225,  
         230  
     Boethius’ first thesis (BoST<sub>1</sub>),  
         31–37, 41, 44, 55n55, 76,  
         169n106, 224  
     Boethius’ second thesis (BoST<sub>2</sub>),  
         69, 82, 129–130, 225  
     triangle, 13, 32–34, 106–107  
     unity, 68n109, 151, 155–170,  
         182–185  
 semantics  
     Ammonian-Boethian, 188–190  
     Fregean, 18, 38–39, 41, 100n94  
     Porphyrian, 219, 235  
 σημείον, 48–51  
 Seneca, XXI, 44n5, 232  
 sensation, 27, 30, 102, 232, 234  
 sense, Fregean (cf. ‘reference,  
     Fregean’), 10, 12, 18–22, 24–27,  
     32, 37–41, 100n94, 224, 227, 231  
*sensus*, 29n58  
 sentence, 11, 13, 17 etc.  
     declarative, 17–18, 124–125, 149,  
         152–156, 172, 175, 177, 182–  
         183, 200, 230, 232n58  
     five kinds, 152–154

- Sextus Empiricus, *xxi*, 21n22,  
140n116, 164
- sign (Lat. *signum*, Gk. σημεῖον), 10,  
20, 22, 42–46, 48–52, 55, 57–64,  
66–69, 74–76, 80, 91, 102–103,  
112, 153, 164, 201–204
- signification  
one-stage view, 33, 224, 235  
two-stage view, 32, 34, 224
- significatum*, 17–42, 156–157, 178,  
225, 230
- signum*, 58–64
- Simplicius, *xxii*, *xxiii*, 31n72,  
63n88, 125n48, 127n56 and n57,  
130n63, 131n75
- σχῆμα, 127n57
- soul, 23n32, 108n122, 141, 274n73
- species (cf. ‘genus’), 17, 18n5, 26,  
28n49, 29, 51, 68n109, 100, 135,  
152, 160, 161, 182–183, 222
- speech (Lat. *oratio*, Gk. λόγος), 23,  
28, 56, 72, 75n137, 79, 84, 93–95,  
99, 108, 124, 139–140, 147–148,  
151–185, 232, 234
- imperfect vs. perfect, 152, 154–  
155, 175
- in disposition, 85
- mental, 13, 72, 77–113, 151, 234
- parts of, 72, 78, 88n47, 119–  
127, 129–131, 135, 138–139,  
140n116, 143, 147, 151, 172,  
182, 184, 187, 193, 201
- simple vs. composite, 141, 170–  
181, 184–185
- single vs. multiple, 140, 159–170,  
178–182, 184–185
- supplements of, 126, 139, 147,  
151, 173
- three types of, 13, 72, 76–113,  
138, 151
- Stoic(s), 4, 9, 18n6, 21–22, 27–28,  
32n83, 64n92, 69n112, 77n2,  
102n104, 109n126, 110n133,  
118, 120–121, 127, 130, 133n88,  
146n138, 147–148, 152, 154,  
164–166, 177, 184, 218n129, 231–  
235
- subject (cf. ‘predicate’), 11, 14,  
19, 36, 75n137, 123, 138–139,  
142n126, 144, 156, 160–162, 171–  
173, 177, 180, 184, 187–188, 190–  
197, 203–204, 207–208, 210–211,  
213, 215–217, 219–220, 222, 229
- subjective, 10–11, 45, 227
- subsistere*, 28n49, 40n110, 204n67  
and n68
- substance, 1, 11, 23n32, 30n65, 38,  
71, 73, 85n37, 93, 97, 134, 144,  
157, 160–162, 205–206, 221n137,  
228–229
- σύμβολον, 45–48, 51
- supposition, 19
- syllogism, 48–50, 59–61, 63, 74, 78,  
145n134, 148n149, 165, 232  
hypothetical, 140, 148
- symbolus* (-um), 52–58
- syntactic, 79, 113, 157
- tabula rasa*, 109
- τεκμήριον, 61
- tense (see also ‘time’), 121–123,  
129n63, 137–139, 140n118,  
189n6, 221, 222n140
- term (Lat. *terminus*, Gk. ὅρος), 19–  
20, 48–49, 59, 75n137, 100, 140,  
146, 148, 158–159, 170–176, 178–  
181, 184–185, 187–190, 192–195,  
197–199, 203, 210, 212, 219–220,  
226, 229, 231
- Boethius’ first definition, 172
- Boethius’ second definition, 172,  
192
- Boethius’ third definition, 174,  
188, 220
- major vs. minor, 171–172
- terminism*, 18–19, 184
- tertium adiacens*, 191–194, 210, 217,  
220
- Tertullian, 53
- Themistius, *xxi*, 3
- theology, 1–2
- Theophrastus, 62–63, 131
- theurgy, 55–56
- Thomas Aquinas, 207n78, 230n43

- thought(s) (Lat. *intellectus*, Gk. διάνοια, νόημα), 10, 13, 20, 22–27, 29–39, 41–45, 51, 61, 63, 70–77, 80–84, 89–113, 117, 128, 145, 156n36, 164, 170, 210, 218, 223–228, 230–232, 234  
 the first thought (*see* ‘first thought, the’)
- time (Lat. *tempus*, Gk. χρόνος, *see also* ‘tense’), 35n92, 62, 73, 83, 86, 124, 132–134, 137, 147, 187, 189n6, 221, 228–229
- topics (Lat. *loci*, Gk. τόποι), 164n75, 232
- translation, 79  
 from Greek into Latin, 1, 3–6, 13, 18n6, 22, 43–76, 100, 117, 156n39, 160, 165, 171, 185n185, 195, 199–202, 204n67  
 indeterminacy of, 112
- truth (*see also* ‘truth-value’), 5, 10, 17, 29, 35, 71, 88–89, 93–94, 124, 127n58, 141, 208–209, 213  
 epistemic, 36–37  
 ontic, 37  
 semantic, 36–37, 145, 183, 222, 230
- truth-condition, 145, 148, 170, 176, 188, 222, 228–229
- truth-function, 147–148
- truth-table, 145–146, 168
- truth-value, 18, 25–27, 35, 38–41, 62, 64n89, 72, 89, 93n63, 94, 137, 144–146, 148–149, 162n66, 170, 176, 182–183, 188, 209–210, 213–216, 222, 228, 230, 234  
 bearer, 18n7, 35, 94  
 gap, 39–41
- τύπος, 232
- universals, 28, 156n36, 109n127
- univocal (Lat. *univocus*, Gk. συνώνυμος), 206
- utterance (*see* ‘speech’)
- Varro, XXI, 121, 208n83
- verb (Lat. *verbum*, Gk. ῥῆμα), 122, 129–139 etc.  
 genus of, 123–124  
 mental, 10, 14, 77–113, 117, 223–230  
 neutral, 123–124  
 ‘to be’, 187–222
- verisimile*, 60n73
- Vettius Agorius Praetextatus, XXI, 3
- Victorinus, Marius, XXI, 3
- Virgil, XXI, 66n102, 87n46, 136n98, 153
- vis*, 140
- vocabulum*, 68n109
- vocal sound (Lat. *vox*, Gk. φωνή, *see also* ‘word, spoken’), 20, 22–23, 25–26, 31–32, 35, 67–68, 70, 72–73, 77, 80–82, 86, 91–92, 96–99, 101, 111, 123, 128–129, 131, 149, 151, 161, 225, 232  
 definition thereof, 8–9
- vox*, (*see* ‘vocal sound’ and ‘word, spoken’)
- will (Lat. *voluntas*), 68, 69n112, 99, 108, 110, 112, 235
- William of Moerbeke, 4, 52, 74n132
- World Soul, 85
- word  
 spoken, 9–10, 13, 20, etc.  
 written (Lat. *littera*, *elementum*, Gk. γράμμα), 10, 13, 37, 43, 62–63, 67, 69–70, 72, 77, 81–82, 94–96, 99–103, 105n114, 112, 164, 224–225

## INDEX OF MODERN AUTHORS (SELECTIVE)

- Ackrill, John, 12n57, 43, 80, 117,  
119, 147n144,, 157, 159, 194,  
199–201, 213, 234n71
- Arens, Hans, 8n31, 45n11, 69n114,  
102, 108n121, 229n32
- Asztalos, Monika, 23n33, 27n44
- Aubenque, Pierre, 45n12, 48n23,  
49n27
- Ax, W., 8n36, 9n38, 9n41, 46n19,  
47n21, 51n38
- Bäck, Allan, 135n95, 135n97,  
217n127
- Baratin, Marc, 58n67, 64n92,  
118n8, 139n114, 183n178,  
235n80
- Barnes, Jonathan, 22n27, 126n50,  
127n57, 127n58, 134n89,  
139n114, 148n149, 175, 177,  
188n44, 189n11, 190n15,  
197n39, 198n46, 201n54, 229n35,  
232n56
- Berka, K, 96n71, 120n21
- Bidez, Jean, 211
- Blank, David, 118n7, 174n133,  
218n129
- Bonfiglioli, Stefania, 55n52, 59n59
- Boschung, Peter, 105n116, 235n80
- Burnyeat, Myles, 49n24, 49n25,  
50n30
- Cameron, Margaret, 8n35,  
28n48, 42n122, 224n5, 233n64,  
234n72
- Carnap, Rudolf, 21
- Chadwick, Henry, 27n44, 235n80
- Charles, David, 30n66, 63n85
- Chiesa, C., 30n66, 45n13, 51n36
- Courcelle, Pierre, 84n35, 118n12,  
153n7, 189
- Crome, Peter, 55n52, 56n56, 56n57
- De Libera, Alain, 18n9, 27n44,  
28n51, 41n115, 109n127, 119n19,  
184n181, 204n67
- De Rijk, Marie, XIX, 14, 19n14,  
30n65, 45n13, 51n36, 134n91,  
135n97, 187n1, 188–191, 192n23,  
193, 199, 202, 206–207, 217n127,  
218, 223, 231n50, 235n77
- Ebbesen, Sten, 2n6, 2n7, 3n12,  
4, 6n26, 21n19, 27n44, 31n72,  
32n80, 32n81, 32n83, 38n102, 40,  
41n116, 47n22, 64n89, 69n115,  
88n49, 97n81, 97n82, 99n92,  
104n114, 107n120, 111n134,  
119n19, 120n22, 127n57,  
128n59, 130n63, 131n72, 132n76,  
140n116, 165n81, 169n105,  
171n116, 185n185, 201n58,  
206n76, 211n94, 218n129,  
219n132, 219n133, 225n15,  
233n62, 234, 235n79
- Eco, Umberto, 44
- Emilsson, Eyjólfur Kjalar, 37n95,  
111n139
- Engels, J., 46n16, 69n114
- Fodor, Jerry, 78, 79n11, 93n62, 102–  
103, 109n129, 111, 234n71
- Frede, Michael, 21n22, 22n27,  
69n112, 98n88, 118n7, 134n89,  
146n138, 147n145
- Frege, Gottlob, 10–11, 18–19, 21,  
22n26, 24n36, 32n77, 35n92, 38–  
41, 100n94, 156n36, 184n181,  
226–227, 229
- Gaskin, Richard, 33n85, 102, 156n36
- Geach, Peter, 190n13
- Gersh, Stephen, 23n32, 84n35,  
110n130

- Gibson, Martha, 155n. 34, 156n36  
 Graeser, Andreas, 21n23, 232n57  
 Green-Pedersen, N-H., 148n148,  
 164n75, 166n92, 169n103  
 Grice, Paul, 106n119
- Hadot, Pierre, 3n9, 23n33, 213n104  
 Hume, David, 68n108
- Iwakuma, Yukio, 21n24, 188n5
- Jackson, Benjamin, 45n11, 58n67
- Kahn, Charles, 88n47, 215n113,  
 223n62  
 King, Peter, 3n7, 22n27, 204n67  
 Kneale, William and Kneale Martha,  
 90n54, 146n138, 190n12  
 Kneepkens, C. H., 106n119,  
 132n79  
 Kretzmann, Normann, 12-14, 18-  
 22, 30n66, 41n117, 44, 45n12,  
 49n27, 51n34, 51n35, 78-81, 84,  
 86, 92, 94, 111, 184, 223, 231n46
- Lenz, Martin, 77n2, 90n54  
 Lloyd, Anthony, 2n7, 31n72,  
 127n58, 219n133
- Magee, John, XIX, 5n20, 6n26, 7,  
 12-14, 24, 27n44, 27n45, 28,  
 29n58, 30n65, 32, 42n122, 43n1,  
 44-45, 46n15, 50n31, 51n34,  
 51n38, 52, 55, 58-60, 64, 66n101,  
 68n108, 76, 84-86, 88-90,  
 94n65, 96n71, 97-99, 102n101,  
 108n121, 108n122, 110n130, 111,  
 118n12, 120n22, 143, 144nn132-  
 133, 199n48, 206n76, 211n92,  
 218n129, 219n132, 223, 229n32,  
 231n48, 234, 235n80
- Manetti, G., 32n82, 32n83, 45n13,  
 46n19, 58n67, 61n79, 233n60,  
 235n80
- Marenbon, John, XIX, 1n1, 4n15,  
 18n9, 22n27, 78, 108n121,  
 111n137, 118n12
- Martin, Christopher, 31n72,  
 147n142, 162n66, 167n95,  
 167n98, 169n102, 223n1  
 Mates, Benson, 21, 146n138,  
 147n145  
 Minio-Paluello, Lorenzo, 5, 43,  
 60n74, 74n132, 134n92, 200n49  
 Montanari, Elio, 200, 201n55  
 Müri, W., 52n43, 55n52
- Nuchelmans, Gabriel, 17n3, 21n24,  
 22n27, 125n48, 142-143, 152n5,  
 195n32, 232n58
- Obertello, Luca, XIX, 1n1, 27n44,  
 28n53, 84n35, 148n151, 211n94
- Panaccio, Claude, 60n75, 77n2,  
 86n41, 88n49  
 Pinborg, Jan, 130n63, 133n82,  
 229n32, 230n43  
 Powell, J.G.F., 201n56, 232n56  
 Putnam, Hilary, 10, 12n57, 91n55
- Quine, V. Willard, 112n140, 189n6
- Robins, R.H., 118n7, 118n8,  
 147n144  
 Rosier, Irène (or Rosier-Catach, I.),  
 4n16, 18n9, 52n40, 67n107,  
 69n116, 106n119, 133n83,  
 152n4, 199n48, 210n88, 211n92,  
 229n32
- Ross, David, 5, 29n61, 47n22,  
 49n24, 50n33, 60, 112n141,  
 171n114
- Russell, Bertrand, 11, 156n36,  
 146n40, 229
- Sapier, Edward, 75n137, 82  
 Schenkeveld, D.M., 154  
 Shiel, James, 3n12, 8n31, 27n44,  
 171n116, 189, 219n132
- Smith, Andrew, 74n142, 211n92,  
 235n75
- Sorabji, Richard, XXI, 6n23, 75n138,  
 77n2, 127n58, 219n132

- Stump, Eleonore, 27n44, 145n134,  
164n75, 166n86
- Sullivan, Mark W., 125n48,  
142n126, 143n130
- Thörnqvist, Christina, xv, 6n26,  
6n27, 17n3, 44n6, 120n21,  
125n48, 149n155, 153n7, 153n9,  
177n152
- Tisserand, Alex, 68n109, 108n121,  
110n130, 204n67, 204n68,  
207n79
- Todd, R.B., 73n129, 232n56
- Van Den Berg, R.M., 28n53, 56n57,  
75n138
- Weidemann, Hermann 30n66,  
32n83, 43n1, 45n13, 46n19,  
47n21, 51n36, 64n89, 200n52,  
201n55, 203n63
- Whitaker, C.W.A., 30n66, 46n16,  
46n17, 46n19, 63n85, 134n91,  
157n41
- Whorf, Benjamin Lee, 82, 83n27,  
83n28
- Wittgenstein, Ludwig., 68n108,  
234n71